

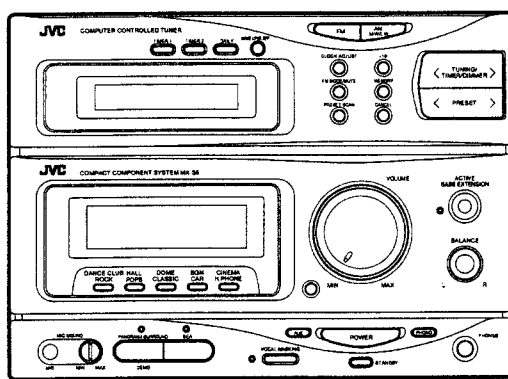
JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-MXS6BK

(Unit No. RX-MXS6BK)



Note 1. This manual is for one part of the titled model consisting of the plural units as detailed.

Unit No. Consisted	Part of Model	Manual No.
<i>RX-MXS6BK</i>	<i>TUNER-AMPLIFIER</i>	<i>20415</i>
<i>XT-MXS6BK</i>	<i>CD-DECK</i>	<i>20416</i>

2. RX-MXS6BK is needed for the power supply when servicing the unit not provided with the power (mains) cord.

Contents

Safety Precautions	1-2	Adjustment Procedures	1-42
Instruction Book	1-3	Schematic Diagrams	Insertion
Description of ICs	1-32	Block Diagrams	Insertion
Internal Connection		Printed Circuit Boards	Insertion
of FL Display	1-39	Parts List	Separate-volume Insertion
Disassembly Procedures	1-41		

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

• Alternate check method

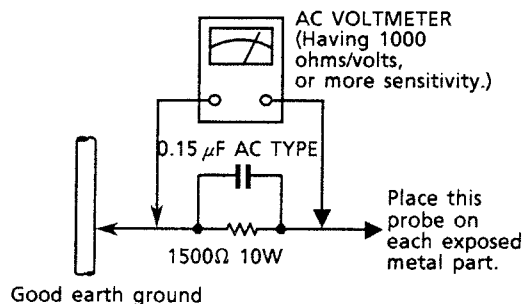
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).

This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Laying Out the System

See page 6 for details.

Aufstellen des Systems

Genaueres siehe Seite 6.

Comment installer le système

Voir page 6 pour les détails.

Opstellen van de installatie

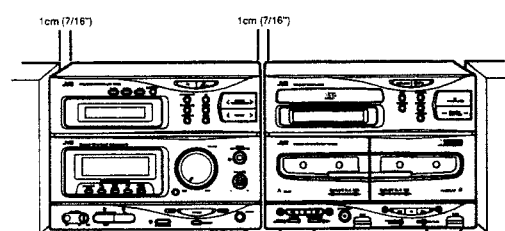
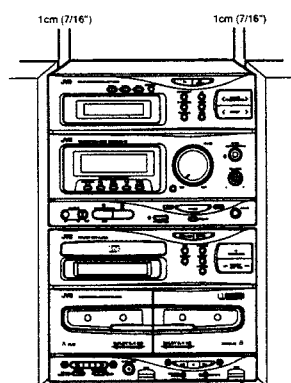
Zie blz. 6 voor meer details.

Manera de instalar el sistema

Con respecto a los detalles, consulte la página 6.

Collocazione del sistema

Vedere pagina 6 per dettagli.



Control Panel and Remote—Illustrations
 Bedienfeld und Fernbedienung—Abbildungen
 Panneau de commandes et télécommande—
 Illustrations
 Bedieningspaneel en afstandsbediening —
 Afbeeldingen
 Ilustraciones del panel de control y del controlador
 remoto
 Pannello comandi e telecomando—Illustrazioni

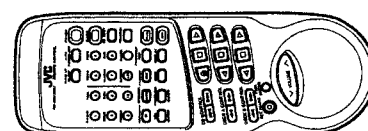
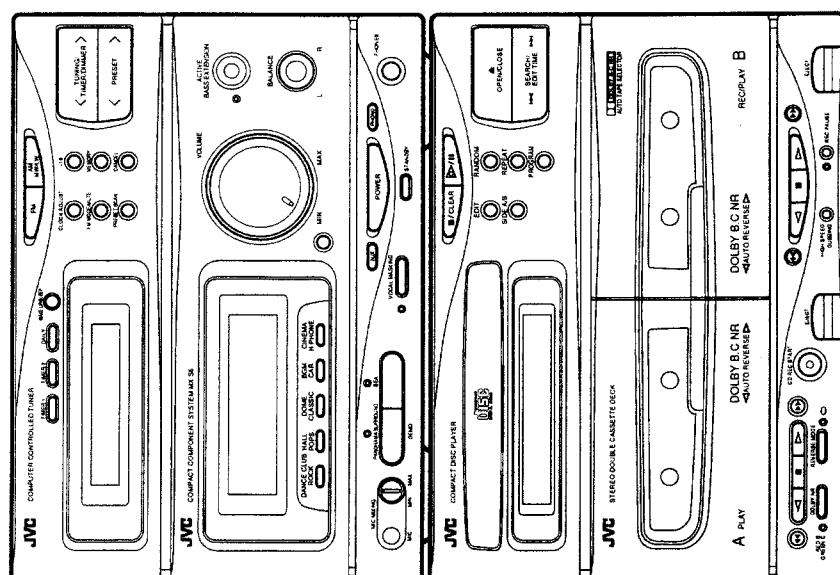


Table of Contents

Control Panel and Remote— Illustrations	G-4	Listening to a Tape	15
Features	2	Playing Back a Tape	15
How to Put Batteries in the Remote Control	2	One Touch Play	15
Connection Diagrams and Instructions	3	Regular Play	15
Connecting the AM (MW/LW) and FM Antennas	3	Fast Left and Fast Right	15
Connecting the Optional Speakers (SP-MXS6BK)	4	Music Scan	15
Connecting the System Connecting Cords and Connecting		Scan Forward	16
Auxiliary Equipment	4	Scan Back	16
Read Me First	5	Listening to a VCR or Record Player through your	
How This Manual Is Organized	5	CA-MXS6BK	16
Getting Started Right	6	Recording	17
Unpacking	6	Things to Know before You Start Recording:	17
Location	6	Standard Recording	17
Set Up	6	Recording any Sound Source to Tape	18
1. Connect the Antenna(s)	6	CD to Tape Recording	18
2. Connect the System Connecting Cords	6	Recording a CD onto a Tape Using Auto Edit	18
3. Connect the Speaker Connecting Cords	6	Recording a CD onto a Tape Using Programmed Edit	19
4. Connect the Speakers	6	Tape to Tape Recording (Dubbing)	19
5. Put Batteries in the Remote Control	6	How to Copy a Tape With Regular Speed Dubbing	20
6. Connect Other Sound Sources, such as VCR or Record		High Speed Dubbing	20
Player (Optional)	6	How to Use the Timers and Set the Clock	21
Common Operations	7	Clock Setting	21
COMPUPLAY	7	Setting Timer 1, Timer 2, and the Daily Timers	21
Turning the CA-MXS6BK On	7	Wake up Timer	22
Turning the CA-MXS6BK Off	7	Sleep Timer	23
Controlling the Sound	7	Turning off the CA-MXS6BK Automatically	23
Volume Control	7	Adjusting the Brightness of the Display	23
Speaker Balance Control	7	Singing Along	24
Special Effects Control	7	How to Sing Along with Vocal Masking	24
Sound Effect Demo Mode	9	Recording Your Singing-Along	24
DISPLAY	9	Recording from the Microphone	24
Active Bass Extension	10	Mixing	24
Using the Vocal Masking Function	10	Regular Microphone Recording	24
Memorizing the Sound Effect for Each Sound Source	10	How to Use the Remote Control	25
Listening with Headphones	10	Using the 10 Key pad	25
The Display and the LEDs—Two Very Useful Hints	10	Care and Maintenance—General Notes	26
Listening to the Radio	11	Compact Discs	26
One Touch Radio	11	Cassette Tapes	26
Tuning in a Station	11	Tape Deck	26
Presetting Stations	11	Troubleshooting	27
Scanning through Preset Stations	12	Specifications	28
Receiving in Stereo or Mono	12		
Listening to a Compact Disc	13		
Basics of Using the CD Player	13		
To Load, Play, and Stop a CD	13		
How to Find the Track or a Particular Point You Want	13		
Locating a Track with the Remote Directly	13		
Programming the Playing Order of the Tracks	13		
Random Play	13		
Programmed Play	14		
Repeating a Selection or the Entire Disc	14		

Features

Great Sound

Here are some of the things that make your CA-MXS6BK powerful and easy to use.

- ❑ To get such **great sound** from such a compact package the CA-MXS6BK has pre-programmed sound effects like **DANCE CLUB, HALL, DOME, BGM, CINEMA, ROCK, POPS, CLASSIC, CAR,** and **H.PHONE** so you don't have to be a sound engineer to get great effects. **ACTIVE BASS EXTENSION** automatically works to maintain the richness and fullness of the sound when the volume level is getting lower.

Easy Operation



- ❑ The controls and operations have been redesigned to make them very easy to use so you can spend your time listening to music.
 - With the One Touch Operation feature of JVC's new **COMPUPLAY** you can turn on the CA-MXS6BK and start the radio, the tape deck, or the CD player with a single touch.
 - Five timers, **TIMER1, TIMER2, DAILY, WAKE UP TIMER,** and **SLEEP TIMER** are extremely easy to set so you can really use them.
 - The **Display area** is large and clear. It's organized so you can tell at a glance what's happening because functions light up as you use them, and blink to tell you they are ready.
 - **Auto Edit** figures out how to arrange CD tracks on a tape. When you are recording a tape from a CD, the selections aren't cut off if the tape ends before the selection does.
 - **Programmed Edit** allows you to arrange CD tracks on a tape in your desired order.

IMPORTANT CAUTIONS

1. Installation of the Unit

- Select a place which is level, dry and neither too hot nor too cold (between 5°C and 35°C).
- Leave sufficient distance between the Unit and your TV.
- Keep the speakers away from TV to avoid interfering with TV.
- Do not use the Unit in a place subject to vibrations.

2. Power cord

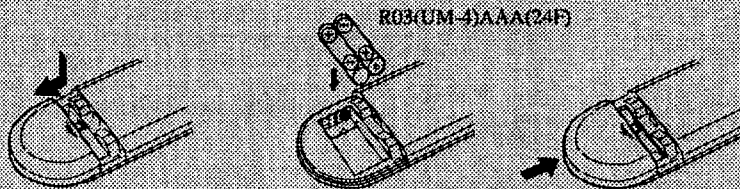
- Do not handle the power cord with wet hands!
- The small amount of the power (13 watts) is always consumed as long as the power cord is connected to the wall outlet.
- When unplugging from the wall outlet, always pull the plug, not the power cord.

3. Malfunctions, etc.

- There are no user serviceable parts inside. If anything goes wrong, unplug the power cord and consult your dealer.
- Do not insert any metallic object into the Unit.

How to Put Batteries in the Remote Control

Match the polarity (+ and -) on the batteries with the + and - markings on the battery compartment.



CAUTION: Observe Proper Handling of Batteries.

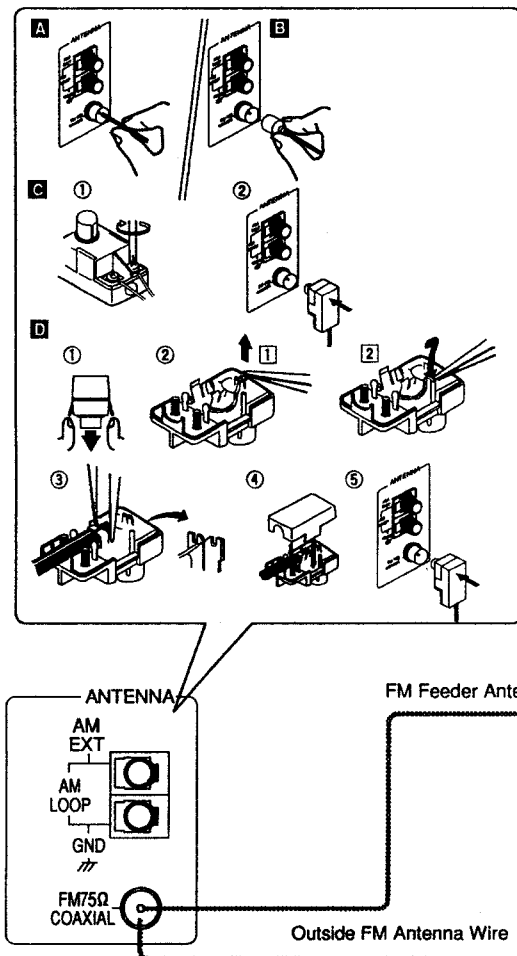
To avoid battery leakage or explosion:

- Remove batteries when the Remote will not be used for a long time.
- When you need to replace the batteries, replace both batteries at the same time with new ones.
- Don't use an old battery together with a new one.
- Don't use different types of batteries together.

Connection Diagrams and Instructions

Connecting the AM (MW/LW) and FM Antennas

FM Antenna Connections



For Germany

A Using the Supplied Wire Antenna

The FM wire antenna provided can be connected to a FM 75-ohm COAXIAL as a temporary measure.

B Using the Coaxial Type Connector (Not Supplied)

A 75-ohm antenna with coaxial type connector (DIN 45332) should be connected to the FM 75-ohm COAXIAL terminal.

For Other Countries

C Using the Supplied Feeder Antenna

① Attach the feeder antenna to the Antenna Adaptor as shown in the figure.

② Connect the Antenna Adaptor to the FM 75-ohm COAXIAL terminal.

D Using FM 75-ohm Antenna Cable (Not Supplied)

① Open the claws at both sides and remove the cover.

② Move the conductor wire from ① to ② using tweezers or similar tool (only when using coaxial cable).

③ Fix the coaxial cable and its core.

④ Put on the cover.

⑤ Connect the Antenna Adaptor on the FM 75-ohm COAXIAL terminal.

Note:

Make sure the antenna conductors do not touch any other terminals, connecting cords and power cord on the system.

This could cause poor reception.

For Germany

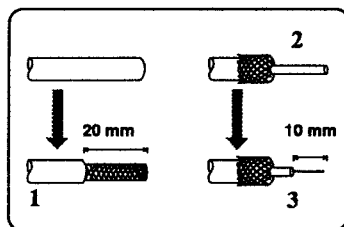
Extend the supplied wire antenna horizontally.

For Other Countries

Unfold the loops of the supplied dipole FM feeder antenna and extend them as shown. Fasten them up in the position which gives you the best FM reception.

Before attaching a 75 ohm coaxial lead (the kind of round wire going to an outside antenna), disconnect the supplied dipole indoor antenna.

If reception is poor, connect the outside antenna.



How to Strip the 75-ohm Coaxial Cable

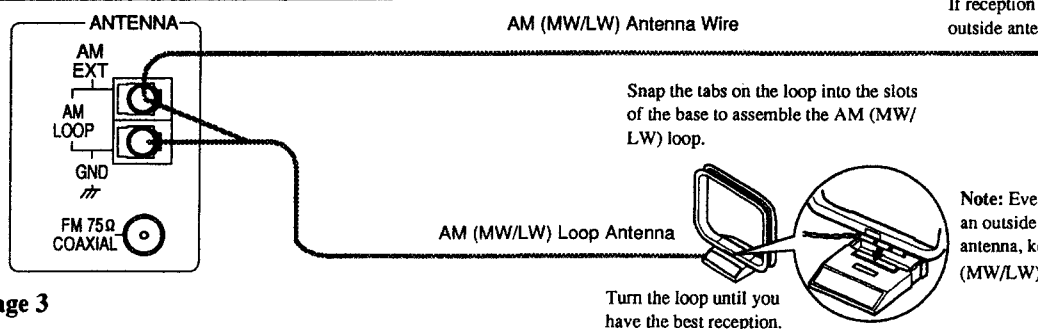
1. Strip back the outside covering of the 75 ohm coaxial cable to expose the braided metallic mesh.

2. Pull the mesh back and twist into a single connector as shown.

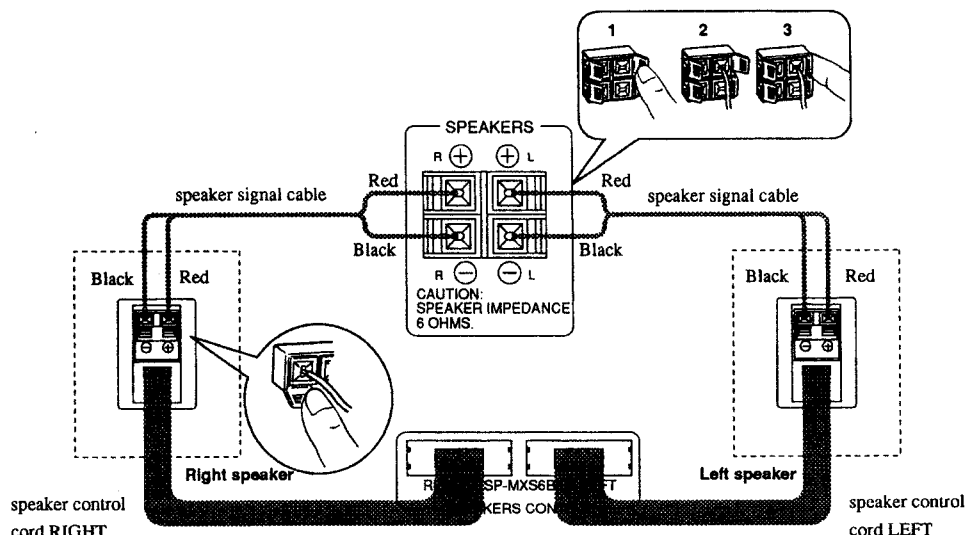
3. Strip the insulation about 10 mm back from the central wire.

4. Attach to the supplied Antenna Adaptor, as shown in the diagram above.

AM (MW/LW) Antenna Connections



Connecting the Optional Speakers (SP-MXS6BK)

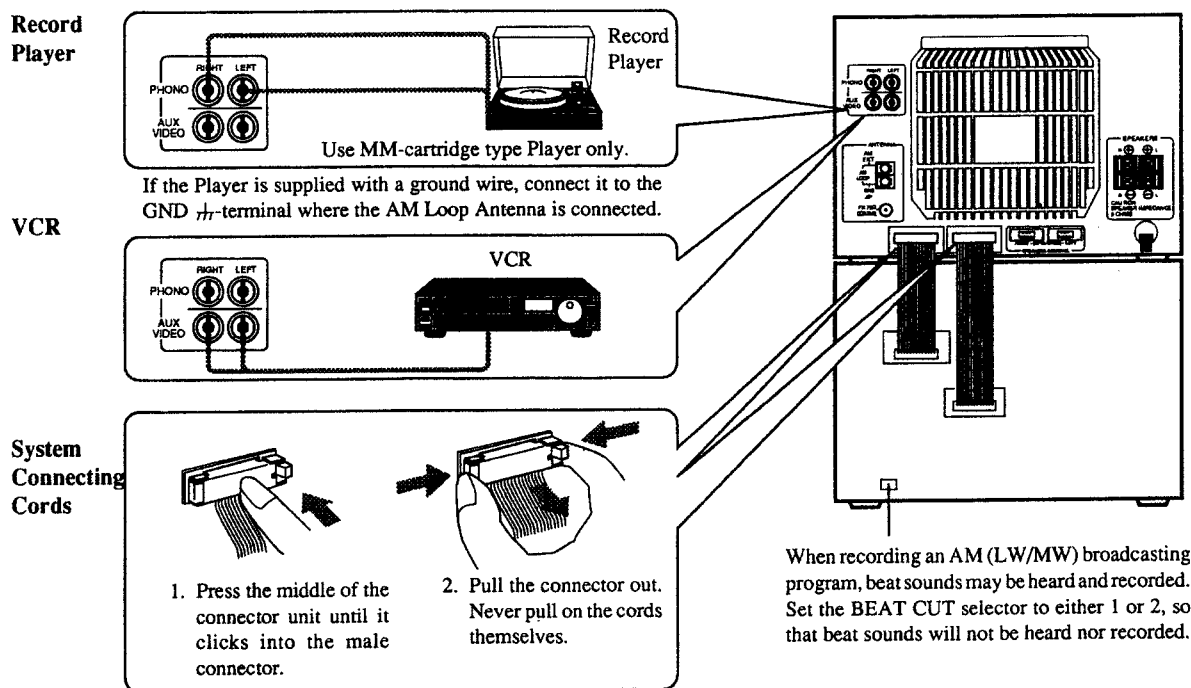


For each speaker connect one end of the speaker signal cable to the speaker terminals on the back of the CA-MXS6BK and one end to the speaker. On the back panel:

1. Open each terminal.
2. Insert the end of the speaker signal cable as shown (be sure to remove the insulation at the end of each wire first).
3. Close the terminals to clamp the speaker signal cable firmly in place.
4. Connect the red (+) and black (-) terminals of the right side speaker to the red (+) and black (-) terminals marked R on the CA-MXS6BK. Connect the red (+) and black (-) terminals of the left side speaker to the red (+) and black (-) terminals marked L on the CA-MXS6BK.
5. Connect SPEAKERS CONTROL RIGHT and LEFT with the supplied speaker control cords.

Caution: If the TV is installed near speakers, irregular colors may result. In this case, set the TV away from the speakers.

Connecting the System Connecting Cords and Connecting Auxiliary Equipment



CAUTION: First make all connections before plugging the Unit into any AC power outlet.

Read Me First

How to get the most for your money by using this manual.

The Engineers at JVC have made the CA-MXS6BK very easy to use, and if you are experienced using audio equipment, you can figure out how to use some of the CA-MXS6BK controls by yourself. However, we have built some new features into this model, which you can learn about easily from the manual.

If you are a new user or just want a review, this manual explains how to use the CA-MXS6BK and take advantage of its features for playing and recording music, as well as other sounds. One way to use this manual is to read it through now and refer back to it when you need to refresh your skills for some special operation. Of course you can just look up the topics, such as recording a CD, that you want to do, but remember that you may need to refer to other parts of the manual for some of the instruction: for instance, in explaining how to record a CD, we assume you already know how to load a CD. That's why we recommend that you read the manual through once before starting. We've made it short, and easy to follow.

However before you proceed, please read the IMPORTANT CAUTIONS on page 2 and the set-up directions.

IMPORTANT!
Special features for a special Manual.

How This Manual Is Organized

This is a special manual, designed to accommodate several languages. To keep the size from becoming too great, yet still give you a top quality instruction manual, we have incorporated some special features:

- A fold-out page to look at while you read the instructions shows the front controls of the CA-MXS6BK. Some procedures have the illustrations of which control to use right with them, and for some you will need to look at the fold-out for the illustration.
- Basic information that is the same for many different functions is grouped in one place, and not repeated in each procedure. For instance, in the section on playing a CD, we do not repeat the information about setting the volume and the sound conditioning, which are talked about in the Common Operations section.
- Names of buttons, controls and function names that light up on the display panel are written in all Capital letters like this: POWER.
- When we are talking about the Function, rather than the BUTTON or DISPLAY, then we just capitalize the first letter of the words.
- The  alerts you to important information or how to solve special problems that may occur when using the CA-MXS6BK.

The column on the left of the page is a special place to make it easier to find just what you want to know about, with little headlines announcing what each part of the page is about. Sometimes illustrations and helpful hints are placed here also.

Basically we use three kinds of information to help you understand and use the CA-MXS6BK:

- Information about what you can do (such as record a CD or preset a radio station) and how the Unit is designed to make doing this activity easy.
- Procedures, usually numbered in the order you do the steps, to guide you in exactly what to do to accomplish something, such as tune a radio station or record a tape.
- Information you need to know to make decisions about which functions of the CA-MXS6BK to use for particular tasks (such as when to use Dolby NR to improve tape sound) and special hints to make your work go smoothly, like reminding you to set the sound effects before starting the CD to tape recording, since they cannot be changed once recording begins without starting completely over.

The manual has a table of contents to help you easily look up what you want to know.

We've enjoyed making this manual for you, and hope you will use it to enjoy the sound and many features built into your CA-MXS6BK.

Getting Started Right

Inside the packing box....

Unpacking

Of course you have already opened your CA-MXS6BK carton, since you are reading this manual. Although the Unit is quite sturdy, you may want to save the packing to re-pack your CA-MXS6BK in case you are moving it some distance.

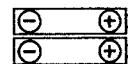
Check to be sure you have all of the following things, which are supplied with the CA-MXS6BK:



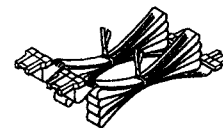
AM (MW/LW) Antenna



Remote Control



Batteries



Speaker Control Cords



**FM Wire Antenna
(only for Germany)**



**FM Feeder Antenna
(except for Germany)**



**Antenna Adaptor
(except for Germany)**

If any are missing, contact your dealer immediately.

Location

You can place the CA-MXS6BK in many different kinds of locations to suit your needs; just observe the cautions on page 2: keep away from moisture and heat; leave some space between the Unit and its surroundings, more than 1 cm at the sides of the console and 10 cm at the back.

Do not place the CD/Cassette Deck Section on the Tuner/Amplifier Section. If you do, the ventilation holes of the Tuner/Amplifier Section will not work.

Where can you put it?

Set Up

You will need to do the following six things to get your CA-MXS6BK ready to use.

Very little assembly required

1. Connect the Antenna(s).
2. Connect the System Connecting Cords.
3. Connect the Speaker Control Cords.
4. Connect the Speakers.
5. Put batteries in the Remote Control.
6. Connect other sound sources (VCR, Record Player) if used.

1. Connect the Antenna(s)

Follow the diagrams on page 3. Here's what you need to know:

- ☐ For AM (MW/LW) reception you must connect the supplied loop antenna. If reception is poor, connect the outside antenna, but leave the loop antenna in place—the AM (MW/LW) will not work correctly without it.
- ☐ For FM reception, connect the supplied wire as shown. However, if you use an outdoor antenna, disconnect the indoor FM antenna first.
- ☐ To avoid noise, keep antennas away from metallic parts of the CA-MXS6BK, connecting cords and the AC power cord.

Please look at the diagrams on pages 3 and 4 to do these things.

2. Connect the System Connecting Cords

Basically, you look at the diagrams on page 4 and follow the pictured instructions. Be sure to match the polarity of the two terminals: A-A and B-B.

3. Connect the Speaker Control Cords

Basically, you look at the diagrams on page 4 and follow the pictured instructions.

4. Connect the Speakers

Basically, you look at the diagrams on page 4 and follow the pictured instructions.

5. Put Batteries in the Remote Control

Pay close attention to getting the batteries in correctly—we've made it very easy, just match the + and - marks on the batteries with the + and - markings on the Remote. See page 2 for instructions.

CAUTION: Handle batteries with care. See page 2 for proper use of batteries.

6. Connect Other Sound Sources, such as VCR or Record Player (Optional)

You can play the sound portion of a TV program or video tape through your CA-MXS6BK's sound system, often improving it greatly. To do this, a VCR or Record Player can be hooked up to play through the CA-MXS6BK. Just follow the diagram on page 4.

Now you can plug the AC power cord into the wall outlet, and your CA-MXS6BK is at your command!

CAUTION: First make all connections before plugging the Unit into any AC power outlet.

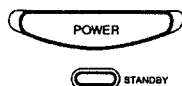
Read on and find out how to use the many features built into your Unit.....

Page 6

Common Operations

Here are the things that apply to all the functions of your CA-MXS6BK. If something in a procedure is unclear to you, check back here.

The Magic of



COMPUPLAY

COMPUPLAY is JVC's new feature that lets you control the most used functions of the CA-MXS6BK with a single touch. This One Touch Operation starts playing a CD, turns on the radio or plays a tape with a single press of the play button for that function. What One Touch Operation does for you is to turn the power on, then start the function you have called for. If the Unit is not ready, such as no CD or tape in place, the Unit still comes on and then pauses so you can put in a CD or tape.

How One Touch Operation works in each case is explained in the section about that function.

Turning the CA-MXS6BK On

Press POWER; the STANDBY indicator goes out.

- ☐ The CA-MXS6BK comes on ready to do whatever it was doing when the power was last shut off. So if the last thing you were doing was listening to a tape in deck B, you now are ready to listen to a tape again in deck B, or you can change to another source.
- ☐ If you were listening to the radio last, the radio comes on playing that last station.

Be sure to read the caution at the end of this section concerning sound levels, and possible damage to your hearing or the equipment.

Turning the CA-MXS6BK Off

Press POWER again; the STANDBY indicator lights up and the display blanks, except for the clock display.

- ☐ The small amount of the power (13 watts) is always consumed even in the stand-by mode.
- ☐ To switch off the Unit completely, unplug the AC power cord from the AC outlet. When you unplug the AC power cord, the clock will be reset in one minutes and the preset stations of the Tuner will be erased in about one week.

Making it sound the way You want it to:

•Volume

Controlling the Sound

The same set of buttons and knobs control the sound, no matter which function is producing it. Here we will briefly explain how these controls work, and how you can use them to increase your enjoyment of the music.

Volume Control

Rotate clockwise to increase loudness, counter-clockwise to reduce loudness. Be sure to read the caution at the end of this section about high sound levels damaging your hearing or your equipment.

•Balance

Speaker Balance Control

If the sounds you hear from the right and left speakers are not well-balanced, you can adjust the speaker output balance with the BALANCE control.

Special Effects Control

The CA-MXS6BK has some preset sound effects that give you control of the way your music sounds, so you can tailor it for your room and for the quality of the source. We can give you some idea of how each one affects the music, but the only way to really tell is to try them yourself. Depending on the way each recording is made, or the quality of the radio signal, they will affect different pieces differently. Feel free to experiment!

Preset SEA (Sound Effect Amplifier) effects

You can select a SEA effect by pressing SEA and select one of the following effects. The effect you want is pointed with the cursor (►) in the display:

•ROCK
•POPS
•CLASSIC
•CAR
•H.PHONE

ROCK	Increases both treble and bass sounds.
POPS	Increases the richness and fullness of the vocal sound.
CLASSIC	Adds depth and brilliance to the sound.
CAR	For recording onto car stereo tapes.
H.PHONE	For recording onto headphone stereo tapes.

Moreover, each SEA effect has 10 different SEA patterns. After selecting your desired SEA effect mode, press the SEA preset button.

For example, when you have selected POPS, pressing POPS gives you the following settings:

→ POPS1 → POPS2 → POPS3 → ... → POPS10

When you select Panorama Surround effects or when you press SEA again, the SEA effect will be cancelled.

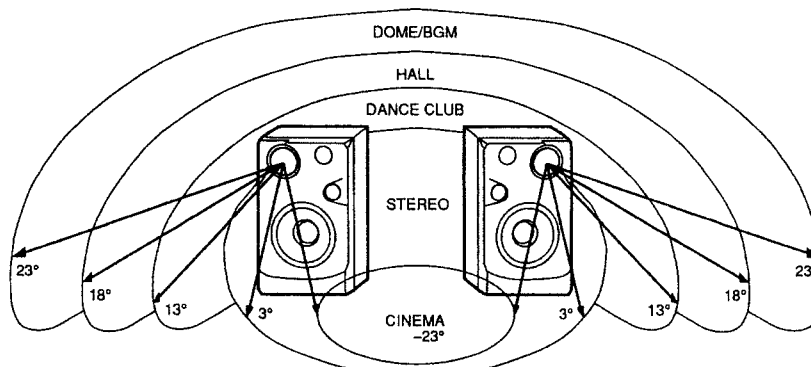
- ☐ You can apply the SEA modes when you record.
- ☐ A sound cannot be dubbed with the SEA modes (at either normal or high speeds).

- DANCE CLUB
- HALL
- DOME
- BGM
- CINEMA

Panorama Surround effect

With five Panorama Surround modes and the Panorama Shifting Speakers (optional), the sound field can be enlarged to give a more realistic sound.

By connecting the optional Panorama Shifting Speakers, the angle of the speakers will shift in accordance with the respective Panorama Surround mode: DANCE CLUB, HALL, DOME, BGM, CINEMA.



DOME/BGM	will shift outward 23°
HALL	will shift outward 18°
DANCE CLUB	will shift outward 13°
CINEMA	will shift inward 23°

- ☐ Panorama Shifting Speakers inside the cabinet will shift corresponding to the respective Panorama Surround mode. The speakers shift automatically inward or outward to give you the dynamic sound fields.
- The mode can be set from either the Unit or the Remote.
- ☐ In the CINEMA mode, the speakers will shift inward to give a movie theater effect and make the spoken words easier to hear.
- ☐ If the TV is installed near speakers, irregular colors may result. In this case, set the TV away from the speakers.
- ☐ Normally, the speakers face directly forward.

Select the following Panorama Surround mode with the Panorama Surround preset buttons.

DANCE CLUB	Gives the throbbing bass beat.
HALL	Gives clear vocals and the feeling of a recital hall.
DOME	Gives the spacious feeling of a domed stadium.
BGM	Gives a easy listening sound with low-volume sounds drowned out.
CINEMA	Gives a movie theater feel and makes the spoken words easier to hear.

Moreover, each Panorama Surround effect has three different patterns. After selecting your desired effect mode, press the Panoram Surround preset button.

For example, when you have selected DOME, pressing DOME gives you the following settings:

→ DOME1 → DOME2 → DOME3 →

- ☐ When you change the setting of the sound effect among the available three patterns, the speaker angle does not change.
- ☐ You can apply the Panorama Surround modes when you record.
- ☐ A sound cannot be dubbed with the Panorama Surround modes (at either normal or high speeds).

When you press SEA or when you press the Panorama Surround preset button, the Panorama Surround mode will be cancelled.

To change the speaker angle

Press IN/OUT on the Remote to change the angle.

The indicator will blink to indicate the speaker's direction of movement.

- ☐ Press IN on the Remote to shift the speakers inward.
- ☐ Press OUT on the Remote to shift the speakers outward.
- ☐ Press AUTO on the Remote to shift the speakers automatically in accordance with the Panorama Surround mode selected.

In the CINEMA mode, if the Remote is used to shift the speakers, the Panorama Surround mode will change from CINEMA to another one.

The speaker angle

To cancel Panorama Surround mode

You can turn off Panorama Surround mode from either the main Unit or the Remote. Just press PANORAMA SURROUND.

ON: the indicator on the main Unit lights up.

OFF: the indicator on the main Unit goes off.

SOUND EFFECT DEMONSTRATION**Sound Effect Demo Mode**

Since there so many preset sound effects, you may be sometimes unable to decide which sound effect to select. In this case, you can use a very useful function – Sound Effect Demo Mode.

- While playing a CD, a tape, etc., keep pressing PANORAMA SURROUND/DEMO for a few seconds. The Unit starts demonstrating 3 preset patterns of each Panoram Surroun effect (DANCE CLUB, HALL, DOME, BGM, and CINEMA) and 10 preset patterns of each SEA effect (ROCK, POPS, CLASSIC, CAR, and H.PHONE) for a few seconds. When you find the desired sound effect, press PANORAMA SURROUND/DEMO again to cancel the demo mode, and select the sound effect.

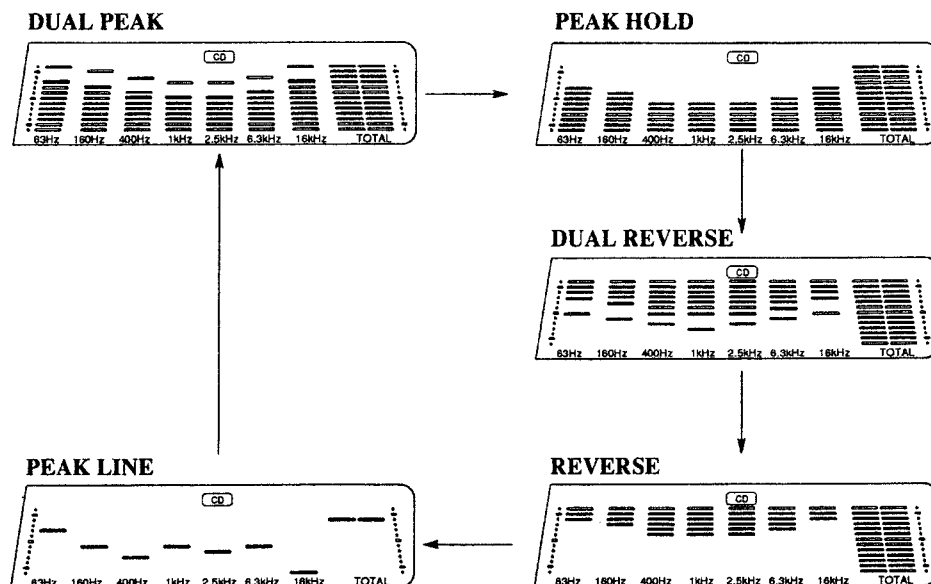
Things to remember about using special effects:

- Experiment with and set your special effects *before* you start recording with Auto Edit or Programmed Edit, because once recording starts, the special effects cannot be changed without stopping recording, and often having to start over. If you need different sound effects for each selection, use the standard recording features described on page 17, rather than Auto Edit or Programmed Edit.
- Each of the special effects changes the sound in a different way by changing which parts of the sound are increased or reduced. To see how each part of the sound will be changed, watch the display just as you press an effect button when music is playing. You will see a graphical display showing the effect's pattern for just a short time before the effect starts. Or press DISPLAY on the Remote to change the display pattern.

Changing the display pattern**DISPLAY**

The display shows the status of each frequency band of the sound. During play, press DISPLAY on the Remote. Each time you press the button, the display shows the various sound patterns.

DUAL PEAK and DUAL REVERSE show also the SEA pattern simultaneously.



**ACTIVE BASS
EXTENSION****Active Bass Extension**

This feature is designed and incorporated to reinforce the bass sound, depending on the volume level to maintain the richness and fullness of the bass. You cannot control it manually.

VOCAL MASKING**Using the Vocal Masking Function**

Pressing VOCAL MASKING cancels the voice part of a song so you can broadcast your own voice through a microphone in place of the lead singer. Now it sounds as if you are singing directly with the band. See page 24 for a more complete discussion of this function.

**MSEC
(Multi Source-Related
Effect Control)****Memorizing the Sound Effect for Each Sound Source**

Press MSEC on the Remote so that the indicator lights.

- ☐ The learning function of the CA-MXS6BK memorizes one sound effect for each sound source, so once you set your desired sound effect for each sound source, you don't have to repeat the many setting procedures each time you play the sound source.
- While the indicator is lit, each time you change the sound source, the preset sound effect for that sound source will be recalled.

To cancel the MSEC function, press MSEC on the Remote again so that the indicator goes off.

Listening with Headphones

A standard pair of headphones can be connected at the PHONES jack on the front panel. No sound can be heard from the speakers. **Be sure to turn down the volume before connecting or putting on headphones, as high volume can damage both the headphones and your hearing.**

**The Display
and
The LEDs****The Display and the LEDs—Two Very Useful Hints**

- ☐ The Display Panel tells you many useful things about what your Unit is doing. Watch it as you give instructions to the CA-MXS6BK by pressing buttons.
- ☐ A few of the controls have a small light, called an LED. The light comes on when the function is on, and goes out when it is not in use.

**Caution:
Too LOUD!****What's Next?**

Now that you know how to control the sound, go on to learn how to enjoy each sound source: Tape, CD, Radio, and Connected Equipment.

CAUTION: Always set the VOLUME control to MIN before turning on a connected source such as a VCR or Record Player, or starting any other of the sound sources such as the radio, tape, or CD player. Otherwise, if the VOLUME control is turned up, the sudden blast of sound energy can permanently damage your hearing and/or ruin your speakers.

Listening to the Radio

The controls for the radio are located in the Tuner section, just above the large volume control. With these controls you can browse through all the stations or use the preset function to go immediately to a particular station.

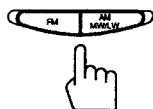
- To record from the radio, see "Recording any Sound Source to Tape," page 18.
- To set the timer to turn the Unit off at a certain time, see "Sleep Timer," page 23.

First we'll explain how to tune in stations, and then how to preset the ones you listen to often.



Radio

Three ways to tune in a station



One Touch Radio

Just press AM (MW/LW) to turn on the Unit and start playing the most recent AM (MW/LW) station tuned in, or press FM to start the most recent FM station playing. If you press TUNER on the Remote instead, you can start playing the most recent station tuned in.

- ☐ You can switch from any other sound source to the radio by pressing either AM (MW/LW) or FM.

Tuning in a Station

Press AM (MW/LW) or FM to turn on the radio. The display shows the frequency of the station tuned to.

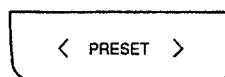
You have three ways to select a station:

1. Press and release TUNING/TIMER/DIMMER < or > to move from station to station until you find the one you want.
OR
2. Hold down TUNING/TIMER/DIMMER < or >, and the display cycles through all the stations one after the other. Release the button when you see the one you want.
OR
3. Press once and release PRESET > to go to the next preset station, or hold PRESET < or > to cycle through the preset stations: release the button when the preset station you want shows on the display. (This method is possible after presetting stations by yourself.)

You can also use the Remote to tune in stations and preset channels:

- To tune preselected stations with the Remote:
 1. Press TUNER so that you can receive the most recent station tuned in.
 2. Select the station by entering the preset channel number in the 10 Key pad of the Remote. The display shows the new channel number and frequency.

How to preset AM (MW/LW) and FM radio stations



Presetting Stations

Once a station is assigned to a channel number, the station can be quickly tuned either from the Remote using the 10 Key pad or the CA-MXS6BK itself using PRESET <, > or +10 to call up the channel number.

- ☐ You can preset a total of 40 stations, either AM (MW/LW) or FM.
- ☐ Preset stations may be erased when power is cut off to the Unit, as when it is unplugged from the AC outlet or a power failure occurs. If the preset stations are lost, simply set the stations again using the following procedure.

To preset radio stations:

1. Tune in the station you want to set.
2. Press MEMORY.
 - ☐ On the display, MEMORY lights up and "----" will blink for 5 seconds. During these 5 seconds while "----" is blinking you can assign a channel number to the station and enter it into the memory.
3. Select a channel number by pressing PRESET <, > or +10 until you find the channel number you want. When you press +10, the ten's digit will increase.
For example, to select 21, press +10 twice and PRESET > twice. To select 19, press +10 twice and PRESET <.
4. Press MEMORY and the station will be assigned to the channel number showing on the display.

**To cancel the preset stations:**

1. Press CANCEL.
 - ☐ On the display, CANCEL and "-- --" will blink for 5 seconds. During these 5 seconds while CANCEL and "-- --" are blinking you can cancel preset stations.
2. Select a channel number by pressing PRESET <, > or +10 until you find the channel number of the station you want to cancel. When you press +10, the ten's digit will increase.
3. Press CANCEL and the station will be erased.

**Scanning through Preset Stations**

You can scan through your preset radio stations, stopping at any station you want to listen to.

1. Press PRESET SCAN.
 - ☐ The Unit scans your preset stations, starting with the frequency being received, and moving upward.
 - Each preset station is received for a few seconds with the channel number blinking.
2. If you want to listen to one of the preset stations, press PRESET SCAN again while the channel number is blinking.

If you do not stop at any station, the Unit will scan through the preset stations once, then return to the station tuned before scanning started.

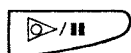
**Receiving in Stereo or Monaural**

When an FM stereo broadcast is hard to receive or noisy:

- ☐ Press FM MODE/MUTE and reception will improve, although you will lose the stereo effect. In this state, you will hear some noise while tuning into a station.
- ☐ To restore stereo effect, press FM MODE/MUTE again so that AUTO appears in the display. In this state, when a program is broadcast in stereo, you will hear stereo sound; when in monaural, you will hear monaural sound. Furthermore, in this state, you won't hear noise while tuning into stations.



How to use the CD player: from the most basic to advanced



PLAY/PAUSE

CD
Find track

Using the Remote to find a track

With programming, you can play back tracks in any order



Listening to a Compact Disc

The quickest way to start a CD is with One Touch Operation:

- ☐ Press Play/Pause ▷/|| on the CD player or Play ▷ in CD CONTROL on the Remote.
 - ☐ If a CD is already loaded, the Unit automatically turns on and starts to play it from track 1.
 - ☐ If no CD is loaded, the CD tray opens, and you can put in a CD, printed side up, press Play/Pause ▷/|| and the tray closes and the CD starts playing.
 - ☐ If you press ▲ OPEN/CLOSE, the Unit automatically turns on and the CD tray comes out.

Basics of Using the CD Player

Here are the basic things you need to know to play a CD and locate the different selections on it. Each selection is called a track, so when we are talking about locating a track, we are also talking about how you find a certain song or performance.

To Load, Play, and Stop a CD

1. Press ▲ OPEN /CLOSE.
2. Put a CD, printed side up, into the tray.
3. If you want to listen to the CD now, press ▷/|| and adjust the volume.
 - ☐ The CD tray closes automatically.
 - ☐ The display shows the track being played and the length of time since it started.
4. To stop the CD, press ■/CLEAR. When you start again, the CD begins with track 1.
5. To pause the play, press ▷/|| while the CD is playing so when you press ▷/|| again the CD starts just where you left off.
6. To remove a CD, press ▲ OPEN/CLOSE, take the CD out, and press ▲ OPEN/CLOSE again to close the tray. Keep the tray closed except during loading and unloading to protect the mechanism from dust and damage.

How to Find the Track or a Particular Point You Want

- ☐ Each time you press briefly and release SEARCH/EDIT TIME ◀◀ or ▶▶ the track changes by one.
 - Press and release SEARCH/EDIT TIME ▶▶ to go ahead one track at a time.
 - Press and release SEARCH/EDIT TIME ◀◀ to go back one track at a time.
- ☐ Holding down SEARCH/EDIT TIME ◀◀ or ▶▶ will fast forward or fast reverse the CD so you can quickly find the particular part of a track you want to listen to.
- ☐ Holding down ◀◀ or ▶▶ on the CD CONTROL section of the Remote allows you to change tracks continuously.

Locating a Track with the Remote Directly

Using the 10 key pad on the Remote allows you to go directly to the beginning of any track.

1. Press CD 10 KEY.
2. Enter the number of the track you want using the 10 key pad.
 - Example: for track 5, press 5. For track 15, press +10 then 5. For track 20, press +10, then 10.
3. As long as a CD is loaded and the Unit is on, as soon as you enter the number of the track you want, it will start to play.

Programming the Playing Order of the Tracks

In addition to the high quality sound which makes the CD such a good way to listen to music, you can change the order in which the tracks play.

Random Play

Before starting a CD, press RANDOM on the CD player.

- ☐ The tracks will play in no special order.
- ☐ When all of the tracks have been played, the CD shuts off.
- ☐ Press REPEAT before or during random play to instruct the CA-MXS6BK to continue with a different random track selection after the last selection is played.
- ☐ To cancel random play, press ■/CLEAR.

Program with the Remote**How to program: just 5 easy steps****Programmed Play**

You can arrange the tracks to play in any order you like with the Program function. The Remote is very useful for this because you can select tracks by number with the key pad. See "How to Use the Remote Control," page 25, if you need more information about its use. You can also use the main Unit.

To program the CD track order from the Remote, follow this procedure:

1. Press PROGRAM.
2. Press CD 10 KEY.
3. Press the number of the first track you want to hear, then the number of the second track, and so on until you have entered all the track numbers you want to play.
 - ☐ Refer to the section "How to Use the Remote Control" on page 25 if you have questions about how to enter numbers above 10.
 - ☐ Your program can include up to 32 tracks, and you can repeat tracks if you wish.
4. Press Play/Pause ▷/|| to start the program—the first track you programmed will start to play, followed by the next one you entered, until all the selected tracks are played.
5. To stop the CD during Programmed Play, Press Stop ■. To cancel the program, press PROGRAM on the Remote or ■/CLEAR on the main Unit.

Programming from the front panel**To program the CD from the main Unit, follow this procedure**

1. Press PROGRAM.
2. Press SEARCH/EDIT TIME ◀◀ or ▶▶ to locate the track you want to start with.
3. Press PROGRAM to store the selected track.
4. Repeat steps 2 and 3 until you have entered all the tracks you want to program.
5. Press Play/Pause ▷/|| and the Unit will begin playing the tracks in the order you programmed them.

Programming Hints**A few hints to make programming easier**

- ☐ If you want to change the entire program, press ■/CLEAR on the main Unit, and then you can start over.
- ☐ If you want to erase the last selection, press CANCEL on the Remote. Each time you press CANCEL the last selection in the program will be erased.
- ☐ To view the order of the tracks in your program when it's playing, press Stop ■ on the Remote, then press ◀◀ or ▶▶ on the Remote to display the order of the tracks. Each time you press ▶▶ the next selection in your program is displayed. (Press ◀◀ for the previous selections.)
- ☐ To add a track to your program, just press the number you want to add.

Repeat a selection or the whole CD**Repeating a Selection or the Entire Disc**

- ☐ You can have either the program or the individual selection currently playing repeat as many times as you like by pressing REPEAT. Each time you press REPEAT, it cycles from OFF, which turns the REPEAT indication out on the display, to REPEAT which will repeat all tracks in order or according to the program you have set, and REPEAT 1 which will repeat the currently playing track. To cancel Repeat, just press REPEAT until the REPEAT indication on the display goes off.

Listening to a Tape

**Listen to a tape:
How to use your tape
deck**

The tape deck allows you to play, record and dub audio tapes.

- ☐ To record or dub, see Recording page 17.
- ☐ With Automatic Tape Type Detection, you can listen to type I, II, or IV tapes without changing any settings.
- ☐ To play a tape and learn about the many easy to use features of the dual tape deck built into your CA-MXS6BK, read on here!

Playing Back a Tape

You can play a tape from either deck A or deck B; but remember: only deck B can record.

One Touch Play

By pressing either Play Forward ▷ / Play Reverse ◁ the power will come on, and if a tape is in the deck, it will start to play. If no tape is loaded, the Unit will come on and wait for further instructions.

Regular Play

When power is already on, you can use this basic procedure:

1. Press EJECT, which is located just to the right of the deck, for the deck you want to use.
2. When the cassette carrier opens, put the cassette in, with the exposed part of the tape down toward the base of the CA-MXS6BK.
 - ☐ If the cassette carrier does not open, turn the Unit off, then back on again and press EJECT.
3. Close the carrier gently.
4. Turn the volume down. (See the Caution on page 10 about possible damage from setting the volume too high.)
5. Press Play Forward ▷ to play the front side, or Play Reverse ◁ to play the reverse side.
6. To stop playing, press Stop ■. To remove the tape, press EJECT.

Fast Left and Fast Right

- ☐ While the tape is stopped, press Fast Left ◀◀ and the tape will wind rapidly onto the left side of the cassette without playing.
- ☐ While the tape is stopped, press Fast Right ▶▶ and the tape will wind rapidly onto the right side of the cassette without playing.

Music Scan

To use the Scan function, you need to understand one basic idea, which might just make you a Master of Tape Control!

- ☐ Look at the Play Forward and Play Reverse Controls:



Deck A

Deck B

- ☐ When the power is on, the glowing LED shows the direction the tape was last moving. When the LED is blinking slowly, the tape is playing in the direction of the arrow. Now comes the tricky part: when the LED is blinking rapidly, the tape can be moving either the direction the arrow points, or the opposite direction, *depending on whether you pushed Fast Right ▶▶ or Fast Left ◀◀*. The tape will be going at high speed in the direction of the arrows of the button you pushed. The direction of the arrow with the rapidly blinking LED shows which way the tape will start playing when the fast search is done. Put in a tape and try it out.
- ☐ The Scan function works by detecting a 4 second blank at the beginning of each selection, so it won't work well if your tape has:
 - No blank at the beginning of a track.
 - Noise (often caused by much use or poor quality dubbing) which fills the blank with.
 - Long very soft passages or pauses in a selection. The scan will detect these instead of the 4 second blanks. If this happens, just go ahead and scan again until you reach the selection you want.
- ☐ Music scan only works on one tape at a time.
 - If you are recording on Deck B, music scan will not work on deck A.



**Playback
Procedure**



**Finding the place you
want:
Music Scan**

Scan Forward.....**Scan Forward**

With the tape playing, to find the beginning of the next selection, press Fast Right ►► or Fast Left ◄◄ whichever one points in the same direction as the arrow with the slowly blinking LED.

- The tape will fast forward to the next selection and begin playing it.

.....Scan Back**Scan Back**

With the tape playing, to find the beginning of the selection now playing, press the Fast Right ►► or Fast Left ◄◄ button pointing the opposite direction from the arrow with the slowly blinking LED.

- The tape will fast reverse to the beginning of the piece and start playing it again.

More Useful Things to Know:

- Continuous Play
- Reverse Mode
- Dolby NR

Useful hints and features to know about when using your tape deck

- **Continuous Play:** When a tape finishes playing with the REVERSE MODE indicator on, the Unit always checks to see if a tape is in the other deck. If one is there, it automatically starts playing it. This Continuous Play happens regardless of which deck starts first.
- **Use Reverse Mode** to make the tape automatically reverse at the end of a side and start playing the other side. Press REVERSE MODE to change from Reverse Mode on (the LED is lit) to Reverse Mode off, or from off, to on.
 - If there is a tape in the other deck, it will start playing when both sides of the first tape have been played. As long as the Reverse Mode LED is lit, the tapes will continue to play in the above sequence.
- Press DOLBY NR to change the **Dolby Noise Reduction** setting. Each time you press this button the setting and the LED states change as follows.

LED	Dolby system
off	—
red	Dolby B
green	Dolby C

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

Listening to a VCR or Record Player through your CA-MXS6BK

Advantages in Connecting a VCR or Record Player

By playing the sound from a VCR or Record Player through the CA-MXS6BK, you can often dramatically improve the quality, and gain control over how the music or program sounds. Once the connected equipment is playing through the CA-MXS6BK, you can apply the sound effects, make recordings, or listen with the headphones. Here are the steps to take:



1. Make a connection between the VCR or Record Player as shown on page 4.
 - Since there are many different types of VCRs and Record Players, we can't tell you here just how to make the connections on the other equipment. However, the diagrams on page 4 will cover most cases, and you can also look in the instruction manual for the VCR or Record Player you have.
2. Press PHONO or AUX either on the Unit or Remote.
 - The Unit is turned on and PHONO or AUX lights up on the display.
3. Switch on the connected equipment and start it playing.
4. Set the Unit's volume to its lowest setting. Use FADE/MUTING on the Remote, or turn the VOLUME control all the way counterclockwise.
5. To cancel the PHONO/AUX setting, change the source by starting any one of the CA-MXS6BK's built-in sound sources, such as the radio or CD player.

Recording

What can you record?

- Tapes
- Radio
- CDs
- Microphone
- Connected Source

Recording onto cassette tape from any of the sound sources is easy and the CA-MXS6BK does most of the work. Just have a tape in deck B, have the source ready, make one or two settings, and you're ready to record.

For each source the procedure is a little different and now we'll explain just what to do for each one. If you forget, just come back to the section which has the specific procedures you need. But first, here are a few things to make your recordings better.

Things to Know before You Start Recording:

Copyright

- It may be unlawful to record or playback copyrighted material without the consent of the copyright owner.

Reduce Hiss—Dolby NR

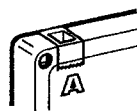
- Press DOLBY NR (noise reduction) to reduce tape hiss. This Unit can use one of two types of the Dolby NR system. Although Dolby C is more effective than Dolby B, if you play back the tape on another tape deck which has only Dolby B NR, you may have better results recording with Dolby B NR.

Recording Level

- The recording level, which is the volume at which the new tape is being made, is automatically set correctly, so it is not affected by the VOLUME control on the CA-MXS6BK. Thus, you can adjust the sound you are actually listening to without changing the recording. If you don't want to listen to the sound, you can turn the VOLUME control all the way down, or press FADE/MUTING on the Remote.

Erasure Protection

- Cassettes have a special feature so you won't accidentally record over a tape you want to save. Two small tabs on the back, one for side A and one for side B, can be removed to prevent erasure or re-recording. To record on a cassette with the tabs removed, you must cover the holes with tape first. However, when a Type II tape is used, only cover part of the hole as shown below, since the other part of the hole is used to detect the tape type.



Select Sound Effects

- When recording, you can select the sound effects with the preset sound effect buttons to condition the music as it is recorded. But when recording using Auto Edit or Programmed Edit, once recording has started, these settings cannot be changed. When recording from tape Deck A to Deck B, the sound effects cannot be used, because the signal doesn't go through the amplifier first. This method gives you the highest quality dubbed tapes.
- Type I, type II and type IV tapes can be used for recording.

 If recordings you make have excessive noise or static, the Unit may be too close to a TV which was on during the recording. Either turn off the TV or increase the distance between the TV and the CA-MXS6BK.

Standard Recording: Any Source to Tape

Standard Recording

This is the basic method for recording any source. The CA-MXS6BK also has special ways for recording CD to tape, and tape to tape, which save you time and effort, as well as give you some special effects. However, when you need to add a selection to a tape you have made, or are combining selections from several sources on one tape, use the method we describe here; just substitute the source you want, such as a tape in deck A, or CD, or radio in this procedure. You can also record from the microphone or an auxiliary source with this procedure.

Source to Tape: Step by Step

Recording any Sound Source to Tape

Follow these steps to record from any sound source onto a tape in deck B.

1. Press POWER so the LED on the VOLUME control glows.
 - ☐ When you want to record on both sides of the tape, press REVERSE MODE to on and be sure to start recording from side A. If you start recording from side B, the deck stops after recording side B without going to side A, even if the Reverse Mode is on.
2. Load the tape you are making into Deck B.
3. Press REC PAUSE. The LED lights up.
4. Prepare the source, for example, tuning in a radio station, loading a CD, turning on a connected Record Player or VCR, etc.
 - ☐ If the source is already playing, just press REC PAUSE, then press either Play Forward > to record on side A, or Play Reverse < to record on side B.
5. When you want to start recording, press either Play Forward > to record on side A, or Play Reverse < to record on side B of the tape.
 - ☐ Hint: any time a source other than deck B is playing, you can record by putting a tape in deck B, pressing REC PAUSE, then Play Forward > or Play Reverse < to start recording that source.

CD to Tape, Introduction

CD to Tape Recording

There are three ways to record from CD to tape:

- ☐ The standard method described above.
- ☐ Auto Edit—Your CA-MXS6BK figures out which selections to put on which side of the tape, so a selection isn't cut off before it's finished when the tape runs out.
- ☐ Programmed Edit—You can decide the selections to be recorded in your desired order.

Auto Edit, CD to tape, Introduction

Recording a CD onto a Tape Using Auto Edit

Using Auto Edit, you can arrange the CD tracks to fit the tape, so a selection isn't cut off when the tape runs out first. Auto Edit is one of the best ways to copy all of a CD onto a tape.

The selection of which tracks go on which side is based on the lengths of the tracks and the length of the tape. The CA-MXS6BK can figure out most of what it needs to know, but you will have to tell it the tape size you are using if your tape is a different size than the one picked by the program. Follow this procedure to record a CD using Auto Edit.

Auto Edit, CD to tape, Step by Step



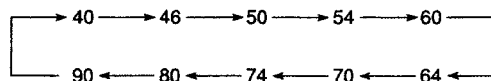
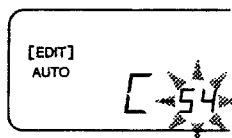
SIDE A/B



CD REC START



1. Put the cassette in deck B.
 - ☐ Press REVERSE MODE if you want to record on both sides of the cassette.
2. Load the CD into the CD Player.
 - ☐ If the CD is already loaded, be sure the power is on.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Press ■/CLEAR.
 - ☐ This cancels the previous edit or program setting.
5. Press EDIT on the CD player so that "[EDIT]AUTO" appears in the display. The system tells you the minimum standard tape length to use.
 - ☐ You can select a different length of tape, depending on the actual size of the tape you are using, from ten possibilities programmed into the CA-MXS6BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 90. Cycle through these choices using the SEARCH/EDIT TIME << or >> until you find the length closest to your tape's actual length.



- ☐ You can use the CD10KEY and the numeric buttons on the Remote to set the tape length as you wish.
6. Press SIDE A/B, and the display shows which tracks will go on side A and which on side B. Each time you press SIDE A/B the display switches between A and B.
 7. Now press CD REC START on the tape deck.
 - ☐ The tape automatically rewinds to the beginning of side A, a 10 second blank is created, and the CD begins to play and be recorded.
 - ☐ To stop recording any time during the process, press either Stop ■ on deck B or ■/CLEAR on the CD player. But remember: after you stop, if you restart, the tape will rewind and start recording the CD from the beginning.

Programmed Edit, CD to tape, Introduction

Programmed Edit, CD to tape, Step by Step



SIDE A/B



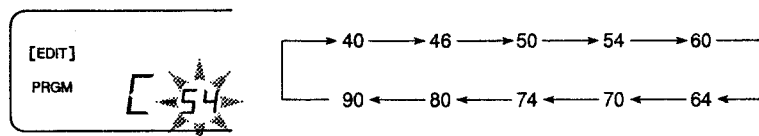
CD REC START



Recording a CD onto a Tape Using Programmed Edit

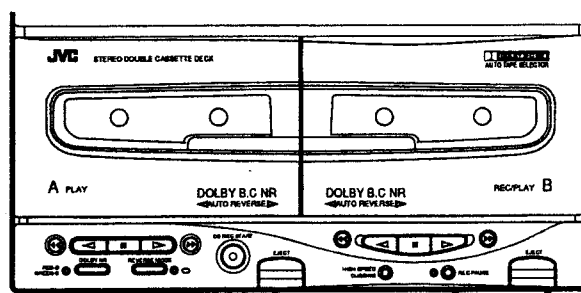
Using Programmed Edit, you can decide for yourself the selections to be recorded in your desired order. First, you will have to tell the Unit the tape size you are using if your tape is a different size than the one picked by the Unit. Then, you can make your program as you wish. Follow this procedure to record a CD using Programmed Edit.

1. Put the cassette in deck B.
 - ☐ Press REVERSE MODE if you want to record on both sides of the cassette.
2. Load the CD into the CD Player.
 - ☐ If the CD is already loaded, be sure the power is on.
3. Set the sound effects you want now, since the sound environment cannot be changed once recording starts.
4. Press **■**/CLEAR.
 - ☐ This cancels the previous edit or program setting.
5. Press EDIT on the CD player so that "[EDIT]PRGM" appears in the display. The system tells you the minimum standard tape length to use.
 - ☐ You can select a different length of tape, depending on the actual size of the tape you are using, from ten possibilities programmed into the CA-MXS6BK: 40, 46, 50, 54, 60, 64, 70, 74, 80, 90. Cycle through these choices using the SEARCH/EDIT TIME **◀** or **▶** until you find the length closest to your tape's actual length.



- ☐ You can use the CD10KEY and the numeric buttons on the Remote to set the tape length as you wish.
6. Press SIDE A/B. Now the tape size is determined and you can make a program for side A. (See steps 2 and 3 on page 14.) After making a program for side A, press SIDE A/B again so you can make another program for side B.
 7. Now press CD REC START on the tape deck.
 - ☐ The tape automatically rewinds to the beginning of side A, a 10 second blank is created, and the CD begins to play and be recorded.
 - ☐ To stop recording any time during the process, press either Stop **■** on deck B or **■**/CLEAR on the CD player. But remember: after you stop, if you restart, the tape will rewind and start recording the CD from the beginning.

Tape to Tape Recording (Dubbing)



Tape to Tape Dubbing, Introduction

Recording from one tape to another is called dubbing. You can dub at regular speed for highest quality, or at high speed with a slight loss in sound quality. With high speed it takes only about one-half the time to copy a tape.

- ☐ Refer back to "Things to Know before You Start Recording" on page 17.
- ☐ Refer back to "Listening to a Tape" on page 15 if you have other questions about operating the tape deck.

Regular Speed Dubbing, Step by Step

How to Copy a Tape With Regular Speed Dubbing

1. Put the cassette you want to copy *from* into deck A for playback.
2. Put the cassette you want to copy *onto* into deck B for recording.
 - ☐ Anything already on the cassette in Deck B will be erased as the new sound from deck A is copied onto it.
3. Press REC PAUSE on deck B.
4. Press the Play Forward ▷ (or Play Reverse ◁) on deck A.
 - ☐ Deck A starts playing and you are set to start recording deck A to deck B.
5. Press the Play Forward ▷ (or Play Reverse ◁) on deck B.
 - ☐ Recording starts, deck A playing and deck B recording.

Important Dubbing Information

The type of tape (Normal CrO₂ or METAL) you record *from* must be the same as the type you record *onto*.

- ☐ When the tape you are recording from in deck A has been recorded with Dolby NR, dubbing will be done with same Dolby NR automatically.
- ☐ During regular speed dubbing you can only listen to the source tape. If you don't want to hear it, turn down the VOLUME control or press FADE/MUTING on the Remote. Only the sound you hear will be affected; the recording level is controlled automatically.
- ☐ You cannot dub using the SEA and Panorama Surround modes.

High Speed Dubbing, Step by Step



High Speed Dubbing

Although the quality of the dubbed tape is a little less, high speed dubbing is a very convenient way to record from one tape to another.

1. Put the cassette you want to copy *from* into deck A, and the cassette to be copied *onto* in deck B.
2. Press HIGH SPEED DUBBING on the tape deck.
 - ☐ Both decks start, deck A playing and deck B recording.
 - The sound you hear is strange because it is much faster than usual, and you may not want to listen to it. Turn down the VOLUME control or press FADE/MUTING on the Remote.
 - When using High Speed Dubbing, you can also listen to another source such as the radio or the CD player, just as if you weren't dubbing.
 - During High Speed Dubbing, if you listen to a CD with Auto Power Off turned on, the whole Unit, including the tape decks, may turn off when the CD ends.

Recording selections from several different tapes

When you want to take selections from several different tapes and combine them on one tape during high speed dubbing, follow these steps:

1. Press Stop ■ on deck A.
 - ☐ This causes deck A to stop, so you can change tapes, and deck B makes a 4 second blank and pauses.
2. Change the tape in deck A.
3. Press HIGH SPEED DUBBING to start deck A playing and deck B recording again.

How to Use the Timers and Set the Clock

Five Timers:

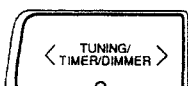
- Timer 1, Timer 2
- Daily
- Wake up
- Sleep
- Auto Power Off

The timers let you control recording and playing functions automatically. With the CA-MXS6BK they are particularly easy to set and use. Five types of timers are available:

- ☐ **Timer 1, Timer 2**—unattended recording of radio broadcasts.
- ☐ **Daily**—recording of a radio broadcast that occurs at the same time every day.
- ☐ **Wake up Timer**—Wake up to music from any source.
- ☐ **Sleep Timer**—Fall asleep and have your CA-MXS6BK turn off automatically after a certain length of time.
- ☐ **Auto Power Off**—Automatically turns off the Unit when the CD or tape finishes.

IMPORTANT! set your clock!

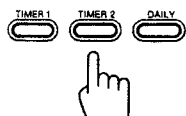
CLOCK ADJUST



MEMORY



Recording when you're not there



Clock Setting

The timers depend on the clock: If the clock is right, the timers will work like you expect, but if the time is incorrect on the clock then the timers will also be incorrect.

Special Notice: The clock must be set, or the timers cannot be set!

So, let's set the clock first.

1. Press CLOCK ADJUST.
2. Set the hours by pressing TUNING/TIMER/DIMMER <, >. Pressing > increases the hour, and pressing < decreases it.
3. Press MEMORY.
4. Set the minutes by pressing TUNING/TIMER/DIMMER <, >. Pressing > increases the minute, and pressing < decreases it.
5. Press MEMORY again and the clock is set and starts from zero second.

⚠ If there is a power failure, the clock loses its setting, the display shows "0:00" and it must be reset.

Setting Timer 1, Timer 2, and the Daily Timers

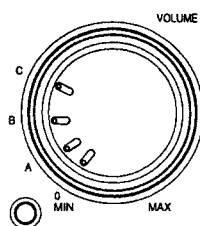
With these timers you can make a tape of a radio broadcast (or other sound sources) automatically whether or not you are there to start the CA-MXS6BK. You can also play the sound source at the specified time without recording them. For the timer to work correctly, you need to make sure of two things in addition to setting the time for the sound source and tape recorder to come on:

- ☐ The tape you want to record onto must be in deck B when you want to record.
- ☐ The radio station whose program you want to tape must be the last one played before timer comes on.

Follow this procedure to set Timer 1, Timer 2, and the Daily Timer:

1. Press TIMER 1, TIMER 2, or DAILY to tell the Unit which timer you are going to set. The corresponding indication (TIMER 1, TIMER 2, or DAILY) flashes in the display. As long as it is flashing, you can continue with the setting process. If you wait too long, and it stops before you are done, just press the button twice and start over.
2. Set the time you want the sound source to come on and the tape in deck B to start recording.
 - ☐ Use TUNING/TIMER/DIMMER <, > just like setting the clock. See instructions above.
3. Set the time you want the sound source to shut off and the tape in deck B to stop recording.
 - ☐ Use TUNING/TIMER/DIMMER <, > just like setting the clock. See instructions above.
4. Select the sound source with TUNING/TIMER/DIMMER <, > and press MEMORY to store it.
 - ☐ Each time you press TUNING/TIMER/DIMMER <, >, the Unit gives you one of the following settings:

Display	What it means
SOURCE - - - - -	Plays from whichever source was used just before turning off the Unit
SOURCE TUNER	Plays an FM or AM broadcast
TIMER REC SOURCE TUNER	Records an FM or AM broadcast
SOURCE - - - CD	Plays a CD
SOURCE TAPE	Plays a tape
TIMER REC SOURCE - - - - -	Records from whichever source was used just before turning off the Unit



5. Set the volume level with TUNING/TIMER/DIMMER <, > and press MEMORY to store it.
☐ Each time you press TUNING/TIMER/DIMMER <, >, the Unit gives you one of the following settings:

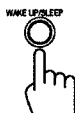
Display	What it means
VOL --	Volume set to the level used before shut the power off.
VOL - 0	Volume off
VOL - A	Volume barely on
VOL - B	Volume at about a 1/4 turn of the volume control
VOL - C	Volume at about a 3/8 turn of the volume control

These volume settings do not affect your recording because the recording level is automatically set by the Unit. So if you're not home at the designated time, be sure to set the volume level to minimum.

6. Press TIMER 1, TIMER 2, or DAILY again, and the Unit will memorize the setting. Now the CA-MXS6BK is set to turn on and record the last station set when the Unit was last turned off.
☐ Notice that the TIMER 1, TIMER 2, or DAILY indicator is lighted up on the display whenever the Timer is set.
7. To cancel the Timer setting, press TIMER 1, TIMER 2, or DAILY again; the corresponding indicator on the display goes off.

 It is very easy, and can be very disappointing, to forget to put in a tape, or to accidentally leave a tape in deck B you don't want recorded over. Although this happens to almost everyone sometimes, we hope it won't happen to you.

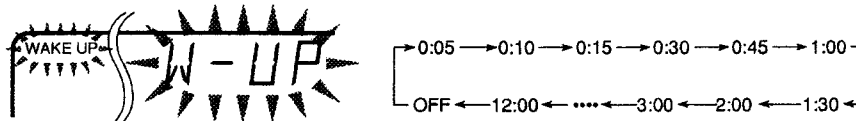
Wake up to music with the Wake Up Timer



Wake Up Timer

With this timer you can wake up to music from a CD, tape or your favourite radio program.

- Press POWER to shut the Unit off.
- Press WAKE UP/SLEEP—The WAKE UP indicator will light up in the display.
- Set the time you want the Unit to turn on.
☐ Each time you press WAKE UP/SLEEP, the wake up time lapse changes in the following order:



- ☐ The WAKE UP indicator remains lit in the display to let you know that the wake-up time is set.
4. To cancel the Wake Up Timer setting, press POWER to turn on the Unit.

Hints for using your Wake Up Timer:

- ☐ If you select AM (MW/LW) or FM as the source, the last played station is the one which comes on at the wake-up time set.
- ☐ The volume when the timer turns on the source is the volume last set when the CA-MXS6BK was turned off. This can be quite a surprise first thing in the morning, so you might want to reset it before going to sleep.
- ☐ If the CD is the source, it starts playing from the first track.

Sleep Timer: turns the Unit off automatically at a set time

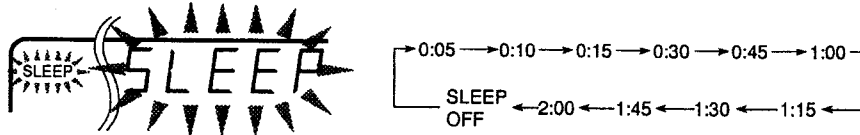
Sleep Timer

Use the sleep timer to turn the Unit off after a certain number of minutes when it is playing. Using this timer, you can fall asleep to music and know your CA-MXS6BK will turn off by itself rather than play all night.

- ☐ You can only set the Sleep Timer when the CA-MXS6BK is on and a source is playing.
- ☐ To cancel the Sleep Timer, press POWER to turn off the Unit.

To set the Sleep Timer follow this procedure:

1. With the CA-MXS6BK on and a source playing, press WAKE UP/SLEEP. The SLEEP indicator on the display will start blinking.
2. Set the length of time you want the source to play before shutting off.
 - ☐ Each time you press WAKE UP/SLEEP while the SLEEP indication is blinking, it changes the number of minutes shown on the display in this sequence:



- ☐ The actual time when the CA-MXS6BK will shut off shows in the right hand corner of the display where the clock time is usually displayed.
- ☐ When the number of minutes you want is shown on the display, just wait 5 seconds until the indicator stops blinking, but remains lighted.

The Unit is now set to turn off after the number of minutes you set.

Timer Priority

Since each timer can be set independently, you may have wondered what happens if the settings overlap. Here are the priorities for each timer.

- ☐ The Wake Up Timer has priority over TIMER 1, TIMER 2, or DAILY timer. This means that if the start-time for one of the timers occurs before the wake-up time, the Unit will wait until the wake-up time to turn on.
- ☐ The Sleep Timer has priority over TIMER 1, TIMER 2, or DAILY timer. This means that if the stop-time for one of the timers occurs before the sleep time, the Unit will wait until the sleep time before turning itself off.

Checking the Remaining Time

After setting the Wake Up or Sleep Timer, you can check the time remaining until the Unit turns on (Wake Up Timer) or shuts off (Sleep Timer).

- ☐ Pressing WAKE UP/SLEEP shows you the remaining time on the display for 5 seconds. Then the display returns to the clock time display (Wake Up Timer) or the radio frequency display (Sleep Timer).

Auto Power Off: turns off your CA-MXS6BK automatically

Turning off the CA-MXS6BK Automatically

When playing either a tape or a CD, Auto Power Off will shut the Unit off when the tape or CD comes to the end. Although Auto Power Off is very useful for shutting off the CA-MXS6BK at night, you can also use it if you think you might forget to turn the Unit off when leaving the house or your room at other times of day. Turning on or off the Auto Power Off is easy, but there are a few things to know about it if a tape is playing. To use Auto Power Off:

- ☐ Press AUTO POWER OFF on the Remote.
 - If the AUTO OFF indicator in the display is on, Auto Power Off is on, and the source will automatically turn off when the tape or CD finishes.
 - If the AUTO OFF indicator is off, Auto Power Off is also off.
- ☐ Even if both tape decks are loaded, the Unit turns off when the currently playing deck finishes; however, in reverse play mode, the Unit plays the side currently playing, reverses and plays the other side, then shuts off.

Adjusting the Brightness of the Display

In the stand-by mode, you can adjust the brightness of the clock display.

Pressing TUNING/TIMER/DIMMER > makes the display brighter.

Pressing TUNING/TIMER/DIMMER < makes the display dimmer.

What is Vocal Masking?

Singing Along

When you press VOCAL MASKING, the lead vocal is reduced, and you can replace it by singing into the microphone as the music plays. No microphone is supplied with the CA-MXS6BK, so you can select your own from the many kinds available.

Singing-Along Procedure

How to Sing Along with Vocal Masking

1. Turn the MIC MIXING control all the way counterclockwise to the MIN position.
2. Attach the microphone (not supplied) by plugging it into the MIC jack in the amplifier section.
3. Start the source—CD, Tape, connected VCR, Record Player.
4. Press VOCAL MASKING—the LED will light up.
5. Now adjust the volume of the source with the main VOLUME control, and the volume of your voice with the MIC MIXING control as you sing into the microphone.

Recording a Singing-Along Session

Recording Your Singing-Along

- ☐ You cannot record your singing-along when the main source is a tape in deck A.

 1. Put the cassette you want to record onto in deck B.
 2. Press REC PAUSE—see Recording, page 17 if you need more information about tape recording.
 3. Follow the above procedure “How to Sing Along with Vocal Masking.”
 4. Press Play Forward ▷ (or Play Reverse ◁) on deck B, and deck B will start recording the source together with your voice in place of the lead vocal.

Important information about Vocal Masking

- ☐ Since the radio signal is not as reliable as signals coming from a tape or CD, you may not always get satisfactory results using the radio as a source for Vocal Masking.
- ☐ Some tapes and CDs are better sources for singing along than others.
 - Monaural sources are not suitable for Vocal Masking.
 - On sources with duets, strong echoes, a chorus, or with only a few instruments, the singer's voice may not be completely reduced.
 - Poorly dubbed tapes may not work well for Vocal Masking.

Recording from the Microphone

Two ways of recording with the microphone

You can use the microphone for two kinds of recording:

- ☐ Mixing—Sound going into the microphone is mixed with sound sent to the tape in deck B from some other source, such as the CD, or radio.
- ☐ Regular recording—Only sound picked up by the microphone is recorded.

Special techniques for using the microphone

Mixing

1. Put the cassette you want to record onto in deck B.
2. Connect the microphone to the MIC Jack.
3. Set deck B to recording pause mode by pressing REC PAUSE.
4. Start the source (radio, CD, and PHONO/AUX) and set the VOLUME control.
5. Adjust the microphone volume with the MIC MIXING control.
6. When you are ready to record, press Play Forward ▷ (or Play Reverse ◁) on deck B, and both sounds from the microphone and from the playing source will be recorded.

Regular Microphone Recording

1. Put the cassette you want to record onto in deck B.
2. Connect the microphone to the MIC Jack.
3. Set deck B to recording pause mode by pressing REC PAUSE.
4. Adjust the volume of the microphone with the MIC MIXING control.
5. Now when you press Play Forward ▷ (or Play Reverse ◁) on deck B, whatever sounds the microphone picks up will be recorded.

Important information for using the microphone

- ☐ You may have to experiment some to see just where to set the MIC MIXING control to get the best recorded sound.
- ☐ To prevent howling and squealing when using the microphone, adjust the MIC MIXING control and the VOLUME control, and try not to point the microphone at the speakers.
- ☐ When you are not using the microphone, keep the MIC MIXING control set to MIN. It is best to disconnect the microphone when you will not be using it for a while.

How to Use the Remote Control

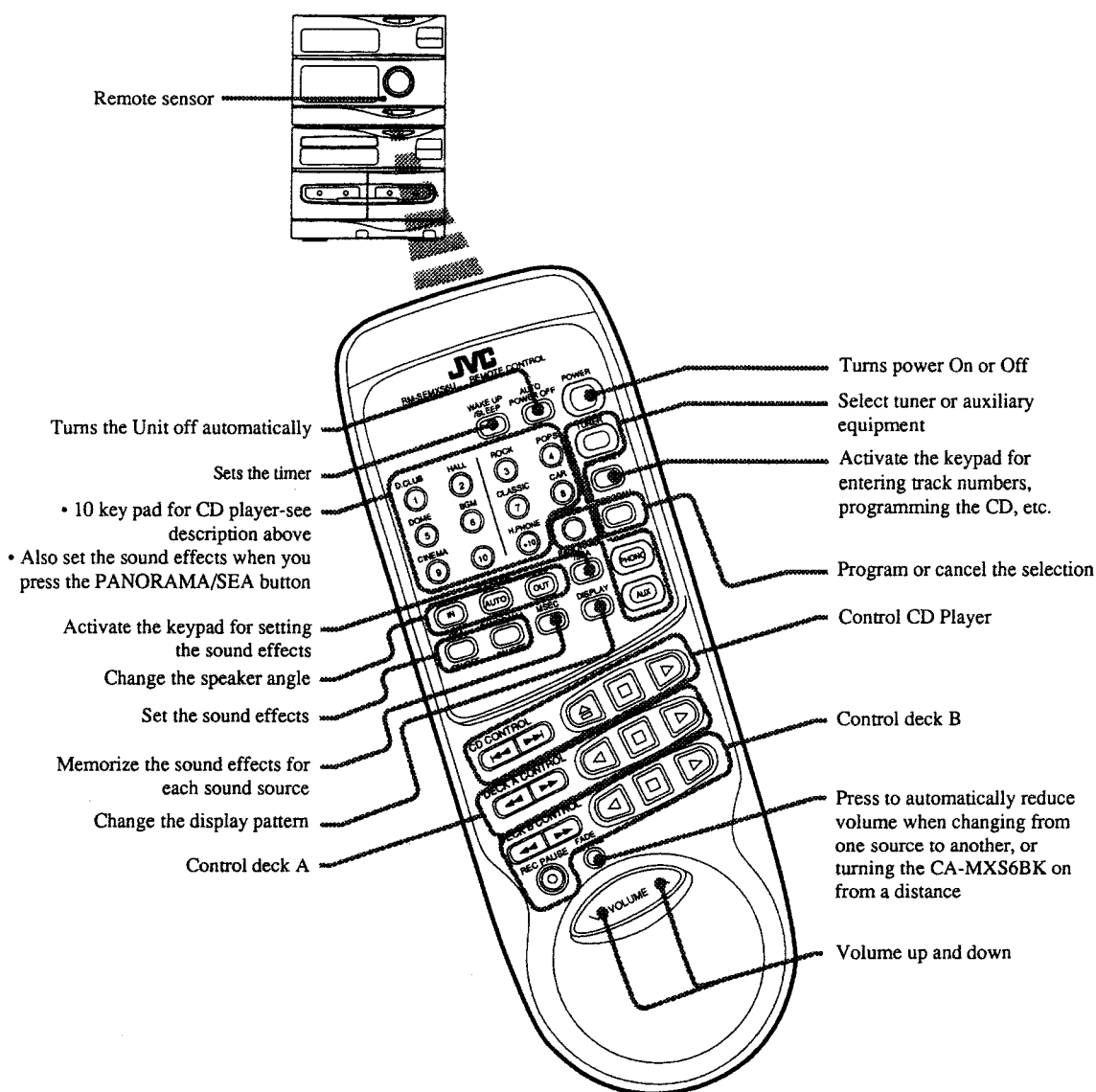
The Remote Control makes it easy to control many of the functions of the CA-MXS6BK from a distance of up to 20 feet away. You do need to point the remote sensor at the CA-MXS6BK console.

Most of the buttons on the Remote Control do just what the ones on the front of the CA-MXS6BK do, and they are explained in the manual. A few functions are available only by using the Remote Control, and those are described below.

Using the 10 Key pad

The 10 Key pad is used to specify a CD track or the number you have assigned to a preset radio station. To enter a number using the keypad follow these steps:

- ☐ For numbers between 1 and 10, just press the button with the number you want.
- ☐ For numbers from 11 to 20, first press the +10 key, then the one's digit of the number you want—to get 15, first press +10, then 5. For 20, press +10 and 10.
- ☐ For numbers from 21 to 30, press the +10 key twice; then press the one's digit—to get 25, press +10 +10 and 5. For 30, press +10 +10 and 10.
- ☐ For numbers from 31 and 40, follow the same procedure, only press the +10 key three times, then the one's digit—to get 32, press +10 +10 +10 and 2.



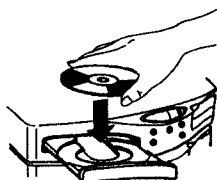
Care and Maintenance—General Notes

Compact Discs

Handle your compact discs, cassette tapes, and tape deck carefully, and they will last a long time.



- Remove the CD from the case by holding it at the edges while pressing the center hole lightly.
- Do not touch the shiny surface of the CD, or bend the CD.



- Place the CD into the open tray with the label facing up.



- Put the CD back in its case after use to prevent warping.
- Be careful not to scratch the surface of the CD when placing it back in the case.
- Avoid exposure to direct sunlight, temperature extremes, and moisture.



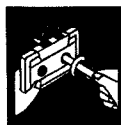
- A dirty CD may not play correctly. If a CD does become dirty, wipe it with a soft cloth in a straight line from center to edge.

CAUTION: Do not use any solvent (for example, conventional record cleaner, spray, thinner, benzine, etc.) to clean a CD.

In general, you will have the best performance by keeping your tapes, CDs, and the mechanism clean.

- Store tapes and CDs in their cases, and keep them in cabinets or on shelves.
- Keep the tape deck tape carriers and the CD tray closed when not in use.

Cassette Tapes



- If the tape is loose in its cassette, take up the slack by inserting a pencil in one of the reels and rotating.
- If the tape is loose it may get stretched, cut, or caught in the cassette.



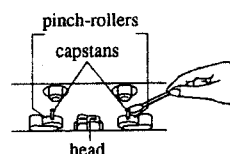
- Do not touch the tape surface.



- Do not store the tape:
 - In dusty places
 - In direct sunlight or heat
 - In moist areas
 - On a TV or speaker
 - Near a magnet

Tape Deck

- If the heads, capstans, and pinch-rollers of the tape deck become dirty, the following will occur:
 - Impaired sound quality
 - Discontinuous sound
 - Fading
 - Incomplete erasure
 - Difficulty recording
- Clean the heads, capstans, and pinch-rollers using a cotton swab moistened with alcohol.



- If the heads become magnetized, they will produce noise or lose high frequencies.
- To demagnetize the heads, turn off the system, and use a head demagnetizer (available at electronics and record shops).

Troubleshooting

- If you are having a problem with your CA-MXS6BK, check this list for a possible solution before calling for service.
- If you cannot solve the problem from the hints given here, or the Unit has been physically damaged, call a qualified person, such as your dealer, for service.

Symptom	Possible Cause	ACTION
No sound is heard.	Connections are incorrect, or loose.	Check all connections and make corrections. (See pages 3 and 4.)
Impossible to record.	Cassette record protect tabs are removed.	Cover holes on back edge of cassette with tape.
Hard to listen to broadcasts because of noise.	The antenna is disconnected.	Re-connect the antenna securely.
	The loop antenna is too close to the system.	Change the position and direction of the loop antenna.
	The feeder/wire antenna is not properly extended and positioned.	Extend feeder/wire antenna at the best reception position.
The CD sound is discontinuous.	The CD is scratched or dirty.	Clean or replace the CD.
Unable to operate the Remote.	The path between the Remote and the sensor on the Unit is blocked.	Remove the obstruction.
	The batteries are discharged.	Replace the batteries.
The CD tray cannot be operated.	The main AC power cord is not plugged in.	Plug in the AC power plug.
The CD does not play.	The CD is upside down.	Put the CD in with the label side up.
Operations are disabled.	The built in microprocessor may malfunction due to external electrical interference.	Unplug the system then plug it back in.
The cassette carrier cannot be opened.	The system was turned off because the timer was operated while the tape was running.	Turn on the system.

Specifications

Tuner/Amplifier Section

Amplifier

Output Power (IEC 268-3/DIN)

35 watts per channel, min. RMS, both channels driven, into 6 ohms at 1 kHz with no more than 0.9% total harmonic distortion.

Input Sensitivity/Impedance (1 kHz)

PHONO 3 mV/47 kohms
AUX/VIDEO 300 mV/47 kohms
MIC 2 mV/10 kohms

Speaker terminals

Speakers 6 ohms

Tuner

FM Tuner

Tuning Range 87.5 – 108.0 MHz
Usable Sensitivity 0.95 μ V/75 ohms (10.8 dBf)
Signal-to-Noise Ratio
(IHF-A weighted) MONO (at 85 dBf) 80 dB
STEREO (at 85 dBf) 73 dB
(DIN) MONO 72 dB
STEREO 64 dB

AM (MW/LW) Tuner

MW-Tuning Range 522 – 1,629 kHz
LW-Tuning Range 144 – 353 kHz
144 – 290 kHz (only for Italy)

Dimensions (Approx.) 245 x 183 x 343 mm (w/h/d)
(9¹¹/₁₆ x 7¹/₄ x 13⁹/₁₆ in.)

Weight (Approx.) 5.0 kg (11.1 lbs)

CD/Tape Deck Section

Tape deck

Frequency response

METAL: 30 – 17,000 Hz
CrO₂: 30 – 16,000 Hz
Normal: 30 – 15,000 Hz
Wow and Flutter 0.09% (WRMS)/0.2% (DIN)

Compact Disc Player

Dynamic Range (1 kHz) 96 dB
Signal-to-Noise Ratio 102 dB
Wow and Flutter Unmeasurable
Dimensions (Approx.) 245 x 183 x 295 mm (w/h/d)
(9¹¹/₁₆ x 7¹/₄ x 11⁷/₈ in.)
(Maximum depth 394 mm (15⁹/₁₆ in.)
with the CD tray open)
Weight (Approx.) 4.2 kg (9.3 lbs)

Power specifications

Power Requirements AC 240 V $\sim$, 50 Hz (for the U.K.)
AC 230 V $\sim$, 50 Hz (for Europe)
Power Consumption 257 watts (for the U.K.)
118 watts (for Europe)

Supplied Accessories

FM wire antenna (only for Germany) (1)
FM feeder antenna (except for Germany) (1)
AM loop antenna (1)
Remote control (RM-SEMXS6U) (1)
Batteries R03(UM-4)/AAA(24F) (2)
Antenna adaptor (except for Germany) (1)
Speaker control cords (2)

Optional Speakers SP-MXS6BK

Type 3 way bass reflex type
Speakers
Woofer 13.5 cm (5³/₈ in.) cone type x 1
Midrange(Motor-driven) 7.5 cm (3 in.) cone type x 1
Tweeter 5.5 cm (2³/₁₆ in.) cone type x 1
Power handling capacity 50 watts
Rated impedance 6 ohms
Frequency range 45 – 20,000 Hz
Sound pressure level 87 dB/w.m
Dimensions (Approx.) 204 x 366 x 245 mm (w/h/d)
(8¹/₁₆ x 14⁷/₁₆ x 9¹¹/₁₆ in.)
Weight (Approx.) 4.2 kg (9.3 lbs) each
Supplied Accessories Speaker cords (2)

Design and specifications are subject to change without notice.

Description of ICs

■ MN171202JHG (IC901) : System controller

1. Terminal Layout

VDD	1	64	OSC2
VOCAL MASKING	2	63	OSC1
SEA	3	62	GND
S1	4	61	
S2	5	60	
S3	6	59	SPI DA
S4	7	58	SPI CS
S5	8	57	SPI CK
S6	9	56	ABX
S7	10	55	PANORAMA IND.
S8	11	54	TUNER RESET
S9	12	53	TUNER INHIBIT
S10	13	52	ACO
S11	14	51	SPK
S12	15	50	S.MUTE
S13	16	49	P.CONT /STD-BY
S14	17	48	DCS OUT
-BP	18	47	DCS IN
S15	19	46	INHIBIT
VOL IND	20	45	REMOCON
VOL UP	21	44	PROTECTOR
VOL DOWN	22	43	RESET
G10	23	42	S.DATA2
G9	24	41	STB2
G8	25	40	S.CLK2
G7 / KEY 05	26	39	G
G6 / KEY 04	27	38	S.DATA1
G5 / KEY 03	28	37	STB1
G4 / KEY 02	29	36	S.CLK1
G3 / KEY 01	30	35	S.DIRECT
G2 / KEY 00	31	34	KEY I1
G1	32	33	KEY I0

2. Key Matrix

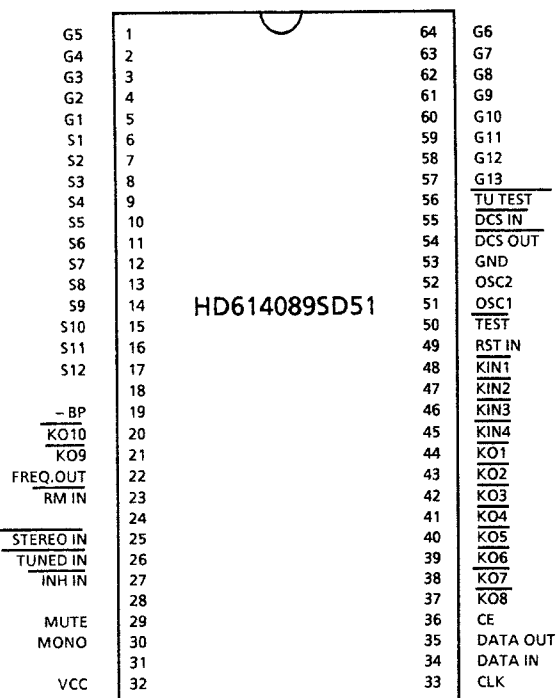
	KEY IN 0 (PIN33)	KEY IN 1 (PIN34)
KEY OUT 0 (PIN31)	POWER	VOCAL MASKING
KEY OUT 1 (PIN30)	AUX	PHONO
KEY OUT 2 (PIN29)	ACTIVE BASS EXTENSION	CINEMA /H.PHONE
KEY OUT 3 (PIN28)	HALL /POPS	DOMES /CLASSIC
KEY OUT 4 (PIN27)	D.CLUB /ROCK	BGM /CAR
KEY OUT 5 (PIN26)	SEA	PANORAMA SURROUND /DEMO

3. Terminal Description

Pin NO.	Symbol	I/O	Function and Operations	Pin NO.	Symbol	I/O	Function and Operations
1	VDD	--	Power supply	33	KI0	O	Key matrix input
2	VOCAL MASK	O	Indication control for 'VOCAL MASKING'	34	KI1	O	Key matrix input
3	SEA	O	Indication control for 'SEA'	35	S.DIRECT	O	Source direct control
4	S1	O	Segment control signal	36	CLK1	O	Clock output for IC501, 512 and 513
5	S2	O	Segment control signal	37	STB1	O	Strobe signal for IC501, 512 and 513
6	S3	O	Segment control signal	38	DATA1	O	Data for IC501, 512 and 513
7	S4	O	Segment control signal	39	G	O	Enable signal for IC904
8	S5	O	Segment control signal	40	CLK2	O	Clock output for IC904
9	S6	O	Segment control signal	41	STB2	O	Strobe signal for IC904
10	S7	O	Segment control signal	42	DATA2	O	Control data for IC904
11	S8	O	Segment control signal	43	RESET	I	Reset signal input
12	S9	O	Segment control signal	44	PROTECTOR	I	Detection for protector
13	S10	O	Segment control signal	45	REMOCON	I	Remote control signal input
14	S11	O	Segment control signal	46	INH	I	Inhibit signal input
15	S12	O	Segment control signal	47	DCS IN	I	Compulink signal input
16	S13	O	Segment control signal	48	DCS OUT	O	Compulink signal output
17	S14	O	Segment control signal	49	P.CONT	O	Power control for the deck / Indicate the 'Stand-by'
18	-BP	--	Power supply for FL display	50	S.MUTE	O	Muting signal when changing the source
19	S15	O	Segment control signal	51	SPK	O	Speaker relay control signal
20	VOL IND	O	Volume indication control	52	ACO	O	Regulator control signal
21	VOL UP	O	Volume control signal	53	T.INH	O	Inhibit signal for tuner controller
22	VOL DOWN	O	Volume control signal	54	T.RESET	O	Reset signal for tuner controller
23	G10	O	Grid control signal	55	PANO.IND	O	Indication control for 'PANORAMA SURROUND'
24	G9	O	Grid control signal	56	ABX	O	ABX control signal
25	G8	O	Grid control signal	57	SPI CK	O	Clock output for IC001
26	G7/KO5	O	Grid control signal (Key matrix out)	58	SPI CS	O	Chip select signal for IC001
27	G6/KO4	O	Grid control signal (Key matrix out)	59	SPI DA	I/O	Peak level data / Control data for IC001
28	G5/KO3	O	Grid control signal (Key matrix out)	60	--	--	Connected to GND
29	G4/KO2	O	Grid control signal (Key matrix out)	61	--	--	Non connection
30	G3/KO1	O	Grid control signal (Key matrix out)	62	GND	--	GND
31	G2/KO0	O	Grid control signal (Key matrix out)	63	OSC1	--	Oscillation terminal
32	G1	O	Grid control signal	64	OSC2	--	Oscillation terminal

■ HD614089SD51 (IC201) : Tuner controller

1. Terminal Layout



2. Key Matrix

	KEY IN 1 (PIN48)	KEY IN 2 (PIN47)	KEY IN3 (PIN46)	KEY IN4 (PIN45)
KEY OUT 1 (PIN44)	—	TIMER1	TIMER2	DAILY
KEY OUT 2 (PIN43)	WAKE-UP /SLEEP	CLOCK ADJ	CANCEL	MEMORY
KEY OUT 3 (PIN42)	TUNING /TIMER /DIMMER UP	TUNING /TIMER /DIMMER DOWN	PRESET UP	PRESET DOWN
KEY OUT 4 (PIN41)	FM	AM	FM MODE /MUTE	PRESET SCAN
KEY OUT 7 (PIN38)	—	—	+ 10	—

3. Terminal Description

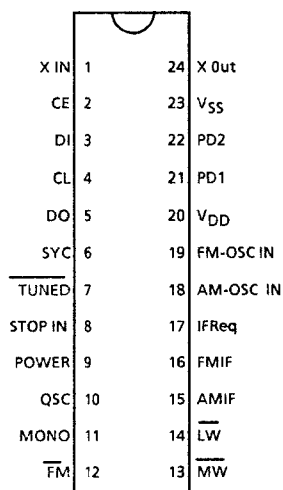
Pin NO.	Symbol	I/O	Function and Operations	Pin NO.	Symbol	I/O	Function and Operations
1	G5	O	Grid control signal	33	CLK	O	Clock for data transmission
2	G4	O	Grid control signal	34	DATA IN	I	Data from PLL synthesizer
3	G3	O	Grid control signal	35	DATA OUT	O	Data for PLL synthesizer
4	G2	O	Grid control signal	36	CE	O	Chip enable signal output
5	G1	O	Grid control signal	37	KO8	O	Key matrix output
6	S1	O	Segment control signal	38	KO7	O	Key matrix output
7	S2	O	Segment control signal	39	KO6	--	Non connection
8	S3	O	Segment control signal	40	KO5	--	Non connection
9	S4	O	Segment control signal	41	KO4	O	Key matrix output
10	S5	O	Segment control signal	42	KO3	O	Key matrix output
11	S6	O	Segment control signal	43	KO2	O	Key matrix output
12	S7	O	Segment control signal	44	KO1	O	Key matrix output
13	S8	O	Segment control signal	45	KIN4	I	Key matrix input
14	S9	O	Segment control signal	46	KIN3	I	Key matrix input
15	S10	O	Segment control signal	47	KIN2	I	Key matrix input
16	S11	O	Segment control signal	48	KIN1	I	Key matrix input
17	S12	O	Segment control signal	49	RST IN	I	Reset signal input
18	—	--	Non connection	50	TEST	I	Test mode terminal
19	-BP	--	Power supply for FL display	51	OSC1	--	Oscillation terminal
20	KO10	--	Non connection	52	OSC2	--	Oscillation terminal
21	KO9	--	Non connection	53	GND	--	GND
22	FREQ.OUT	O	Frequency for the clock	54	DCS OUT	O	Compulink signal output
23	RM IN	I	Connected to +5V	55	DCS IN	I	Compulink signal input
24	—	--	Connected to +5V	56	TU TEST	I	Test mode terminal for the clock adjustment
25	STEREO IN	I	Indication control signal	57	G13	O	Grid control signal
26	TUNED IN	I	Indication control signal	58	G12	O	Grid control signal
27	INH IN	I	Inhibit signal input	59	G11	O	Grid control signal
28	—	--	Non connection	60	G10	O	Grid control signal
29	MUTE	O	Muting signal output	61	G9	O	Grid control signal
30	MONO	--	Non connection	62	G8	O	Grid control signal
31	—	--	Non connection	63	G7	O	Grid control signal
32	VCC	--	Power supply	64	G6	O	Grid control signal

■ LC7218 (IC102) : PLL Synthesizer

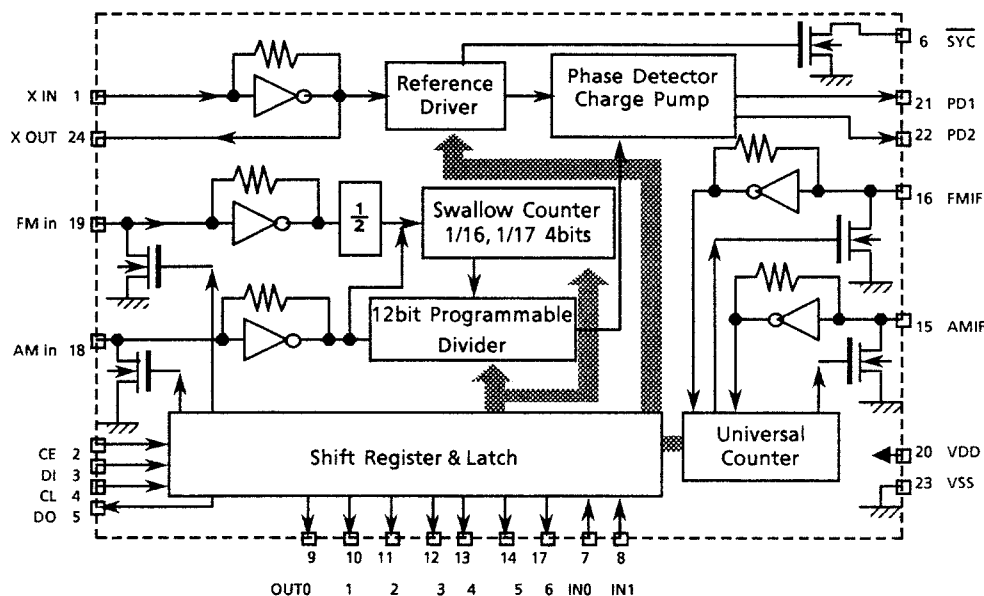
1. The main function descriptions

- (1) It makes the local oscillation frequency by the control data from IC201.
- (2) Decode the control signal and transmit the signal for receiving conditions.
- (3) For the best tuning, count the internal-frequency and transmit the data to IC201.

2. Terminal Layout



3. Block Diagram



4. Terminal Description

Pin No.	Symbol	I/O	Functions and Operations
1,24	X in , X out	I/O	Crystal oscillator (7.2MHz).
2	CE	I	Fix the chip enable to "H" when inputting (DI) and outputting (DO) the serial data.
3	DI	I	Receive the control data from the controller (IC201).
4	CL	I	This clock is used to synchronize data when transmitting the data of DI and DO.
5	DO	O	Transmit the data from LC7218 to the controller which is synchronized with CL.
6	SYNC	—	Not used.
7	Tuned	I	Receive the tuned signal from IC104 (LA1266A).
8	Stop in	I	Not used.
9	POWER	O	Not used.
10	QSC	O	ON mode with "H" and OFF mode with "L".
11	MONO	O	It is "H" on FM-monaural, "L" on FM-Stereo.
12	FM	O	It is "L" on FM mode.
13	MW	O	It is "L" on MW mode.
14	LW	O	It is "L" on LW mode.
15	AM-IF	I	Universal counter input for AM-IF from IC104 (LA1266A).
16	FM-IF	I	Universal counter input for FM-IF from IC104 (LA1266A).
17	IF REQ	O	Output the "IF-signal request" to IC104 when the pin-7 (tuned in) goes to "H".
18	AM OSC	I	Input the local oscillator signal of AM.
19	FM OSC	I	Input the local oscillator signal of FM.
20	V _{DD}	—	This is a terminal of power supply.
21	PD1	O	PLL charge pump output: When the local oscillator signal frequency is higher than the reference frequency high level signals will output. When it is lower than the reference frequency, low level signals will output. When it is same as reference frequency signals, it will be floating.
22	PD2	O	Not used.
23	V _{SS}	—	Power supply.

■ LA1266A (IC104) : FM AM IF AMP & detector

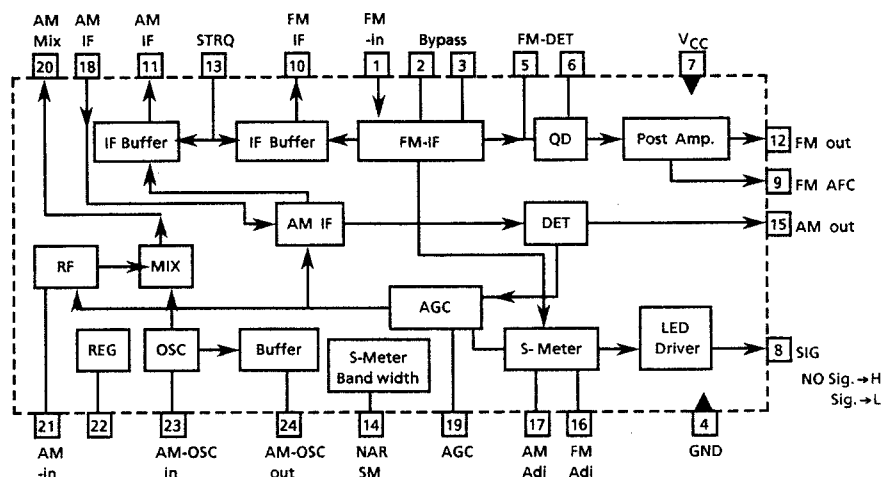
1. The main function descriptions

- (1) Amplify and detect of FM intermodulation frequencies.
- (2) It has local oscillator and mixer for AM, and amplify the AM-IF signal.

2. Terminal Layout

FM-In	1	24	AM-OSC out
Bypass	2	23	AM-OSC
Bypass	3	22	V.ref
GND	4	21	AM-In
FM-DET	5	20	AM-Mix
FM-DET	6	19	AM-AGC
V _{CC}	7	18	AM-IF
SIG	8	17	AM Adj.
FM-AFC	9	16	FM Adj
FM-IF	10	15	AM out
AM-IF	11	14	NAR SM
FM-out	12	13	STRQ

3. Block Diagram



4. Terminal Description

Pin No.	Symbol	I/O	Functions and Operations
1	FM in	I	This is an input terminal of FM IF Signal.
2,3	Bypass	--	Bypass of FM IF Amp.
4	GND	--	This is the device ground terminal.
5,6	FM DET	--	FM detect transformer.
7	V _{CC}	--	This is the power supply terminal.
8	SIG	O	When the machine is tuning, this terminal becomes "L".
9	FM AFC	O	This is an output terminal of voltage for FM -AFC(Auto frequency control).
10	FM IF	O	When the signal of IF REQ of IC102(LC7218) appear, the signal of FM IF output.
11	AM IF	O	When the signal of IF REQ of IC102(LC7218) appear, the signal of AM IF output.
12	FM out	O	FM composite signal output.
13	STRQ	I	The IF-signals come out from pin10 (FM-IF) or pin11 (AM-IF) while this terminal going to "High".
14	NAR SM	--	Control the Band-width of signal meter.
15	AM out	O	AM detection output.
16	FM Adj	--	For adjust the stop level (or mute level) of FM.
17	AM Adj	--	For adjust the stop level (or mute level) of AM.
18	AM-IF	I	Input of AM IF Signal.
19	AM-AGC	I	This is an AGC voltage Input terminal for AM.
20	AM-MIX	O	This is an output terminal for AM mixer.
21	AM-IN	I	This is an input terminal for AM RF Signal.
22	V.REF	--	Register value between pin9 and pin22 decides the frequency width of the input signal.
23	AM-OSC	--	This is a terminal of AM Local oscillation circuit.
24	AM-OSC out	O	AM Local Oscillation Signal output.

RX-MXS6BK

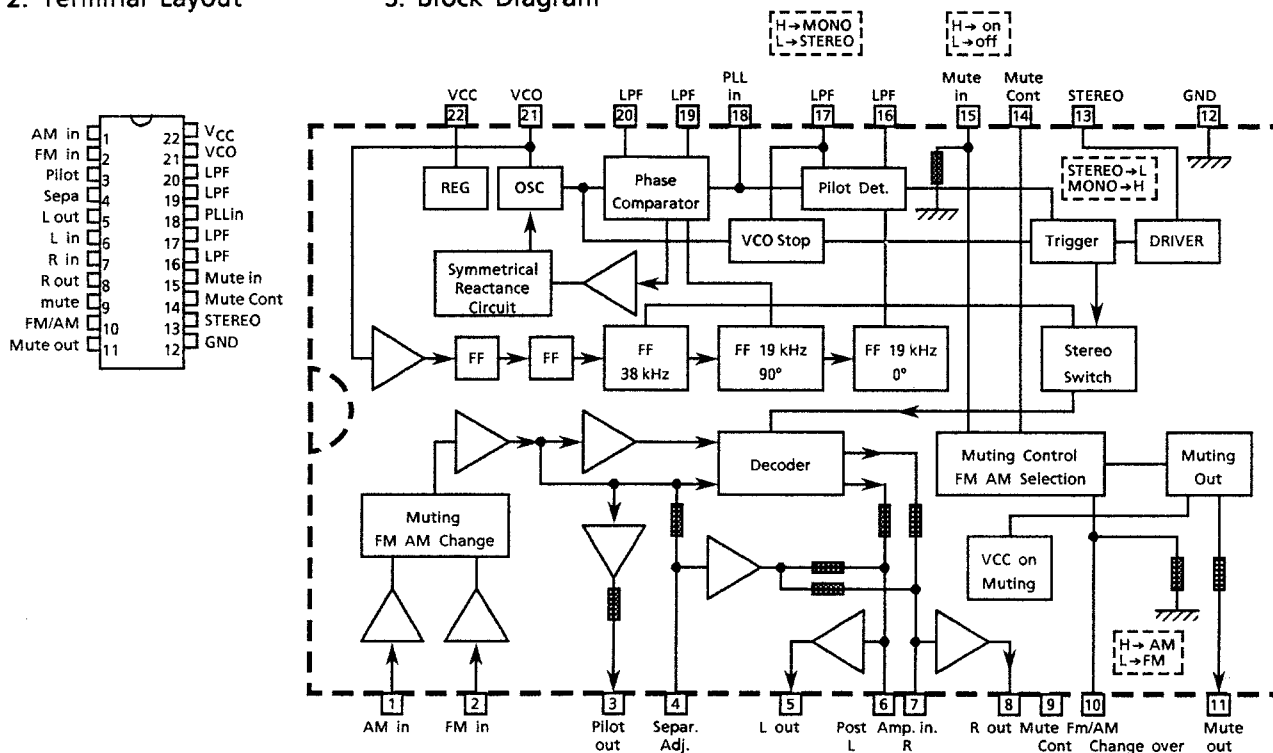
■ LA3401 (IC105) : FM MPX Detector

1. The main function descriptions

- (1) Detect the FM multiplex signal (Stereo signal).
- (2) When receiving FM stereo signal, it outputs the signal for indication.
- (3) AM / FM audio amplifier.

2. Terminal Layout

3. Block Diagram

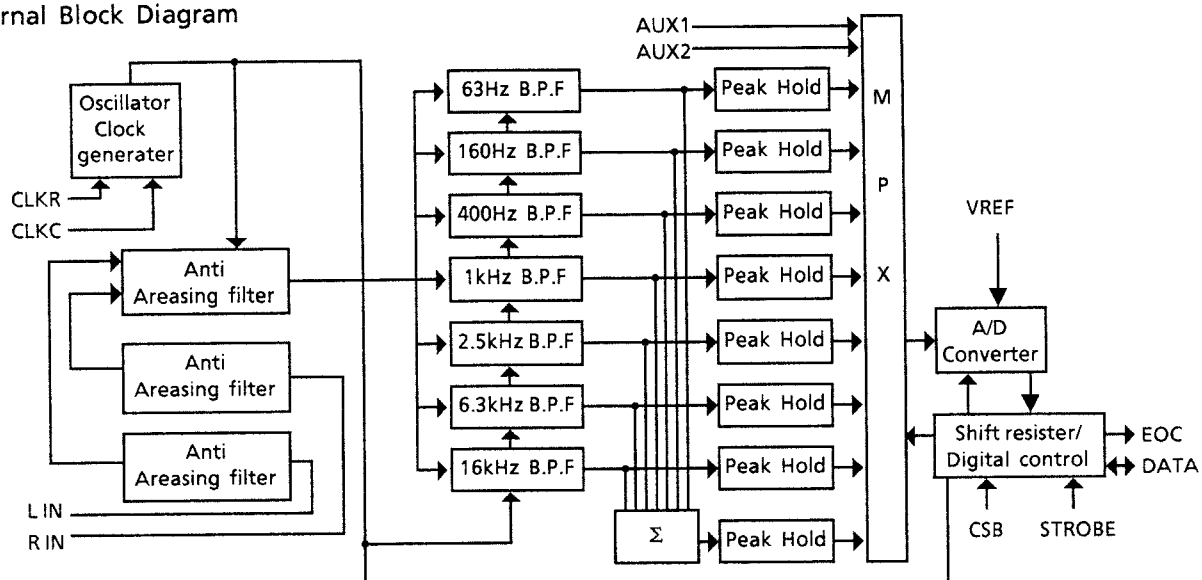


4. Terminal Description

Pin No.	Symbol	I/O	Functions and Operations
1	AM in	I	This is an input terminal for AM detection signal.
2	FM in	I	This is an input terminal for FM detection signal.
3	Composite out	O	Output of the composite signal (Connect to Pin18).
4	Sepa. Adj.	--	Separation adjustment.
5	L. out	O	Left channel signal output.
6	L	I	Input terminal of the left channel post-amplifier
7	R	I	Input terminal of the right channel post-amplifier
8	R out	O	Right channel signal output
9	Mute Cont	--	The mute time is controlled by the connected capacitor when turning the power switch on.
10	FM / AM	I	Change over the FM / AM input. "H" : AM, "L" : FM
11	Mute out	---	Not used
12	GND	--	Ground terminal.
13	Stereo	O	Stereo indicator output. Stereo : "L", Mono : "H"
14	Mute Cont	--	The mute time is controlled by the connected capacitor when changing over the FM / AM .
15	Mute in.	I	Mute signal input. "H" : Mute on, "L" : Mute off.
16	LPF	--	Low pass filter of pilot detector.
17	LPF	--	While this terminal goes to "H", the VCO stops.
18	PLL in	I	Composite signal input
19	LPF	--	Low-pass filter of PLL.
20	LPF	--	Low-pass filter of PLL.
21	VCO	I	Voltage controlled oscillator terminal.
22	V _{CC}	--	Power supply.

■ XR1097CP(IC001) : 7-channel graphic equalizer filter with A/D converter

1. Internal Block Diagram



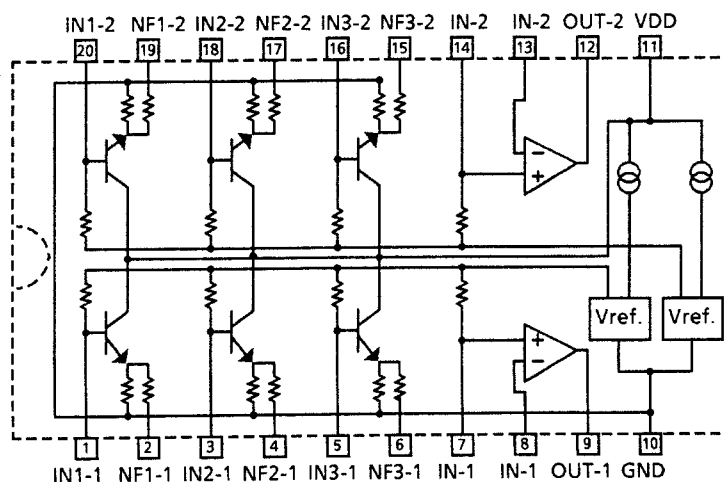
2. Terminal Layout

CSB	1	14	VDD
STB	2	13	CLKR
DATA	3	12	CLKC
EOC	4	11	GND
VREF	5	10	LIN
AUX2	6	9	RIN
AUX1	7	8	VSS

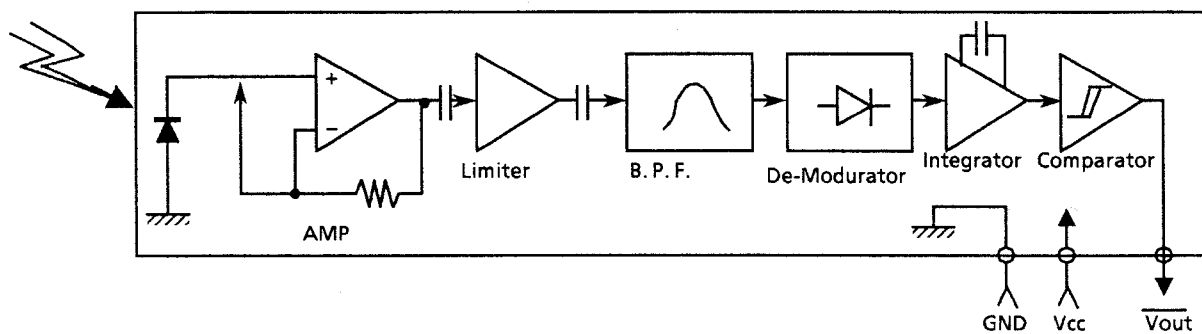
3. Terminal Description

Pin No	Symbol	I/O	Function	Pin No	Symbol	I/O	Function
1	CSB	I	Chip select	8	VSS	--	-5V
2	STB	I	Strobe signal	19	RIN	I	Sound signal input
3	DATA	I/O	Data input / output	10	LIN	I	Connected to GND
4	EOC	--	Non connection	11	GND	--	GND
5	VREF	I	A/D converter reference voltage	12	CLKC	--	A capacitor is connected
6	AUX2	I	Input the signal from the right channel speaker	13	CLKR	--	A resistor is connected
7	AUX1	I	Input the signal from the left channel speaker	14	VDD	--	+5V

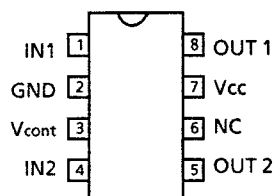
■ M5243P (IC511) : S.E.A. Graphic Equalizer



■ SPS-420-1 (IC910) : Receiver for Remote Controller



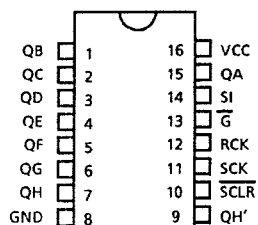
■ LB1639-CV (IC002, 003, 671) : Motor Driver



IN 1	IN 2	OUT 1	OUT 2	MOTOR
H	L	H	L	CLOCKWISE
L	H	L	H	COUNTER-CLOCKWISE
H	H	OFF	OFF	WAITING
L	L	OFF	OFF	WAITING

■ TC74HC595AP (IC904) : 8-Bit Shift Register

1. Terminal Layout



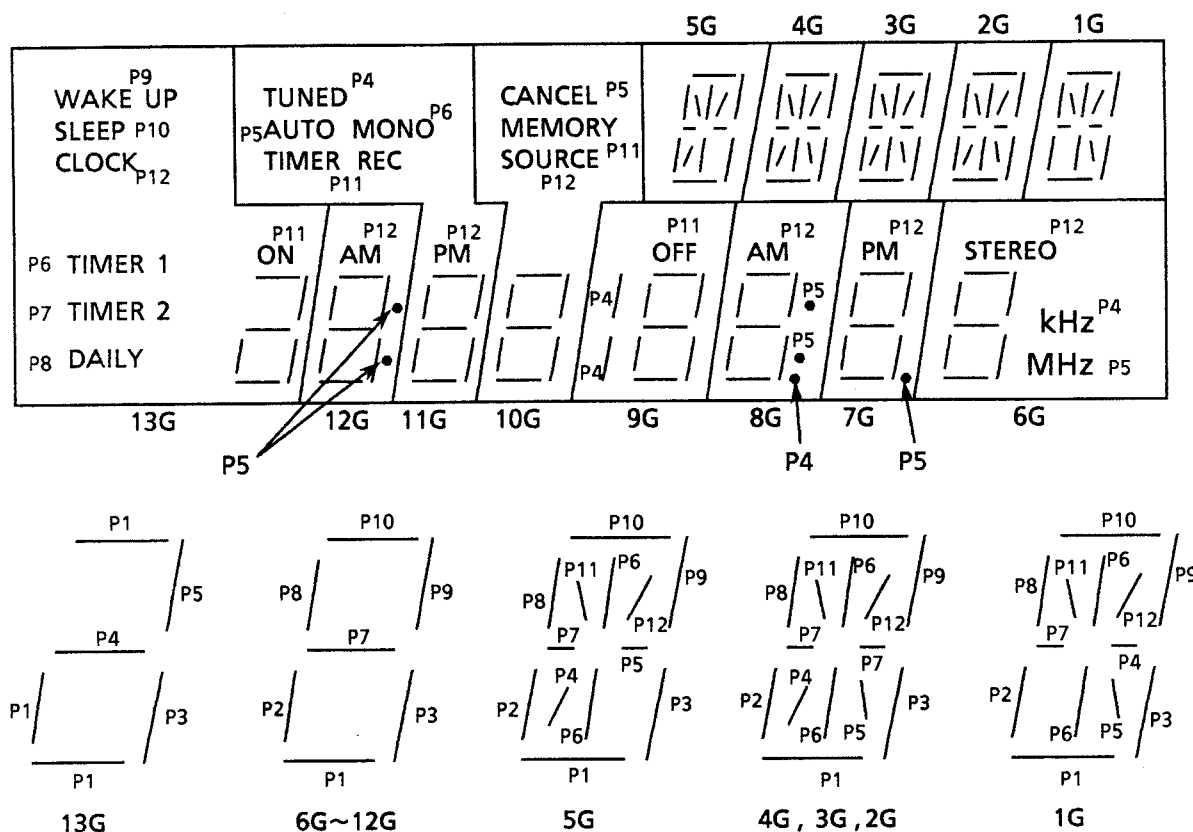
2. Function Table

Inputs					Functions
SI	SCK	$\overline{\text{SCLR}}$	RCK	$\overline{\text{G}}$	
X	X	X	X	H	Output (QA-QH) disable.
X	X	X	X	L	Output (QA-QH) enable.
X	X	L	X	X	Shift register is cleared.
L		H	X	X	Condition of shift register in initial stage is "L". In the other stages, data from the former stage is stored.
H		H	X	X	Condition of shift register in initial stage is "H". In the other stages, data from the former stage is stored.
X		H	X	X	Shift register does not change.
X	X	X		X	Shift register data is stored in the storage register.
X	X	X		X	Storage register does not change.

X : Don't care

Internal Connection of FL Display

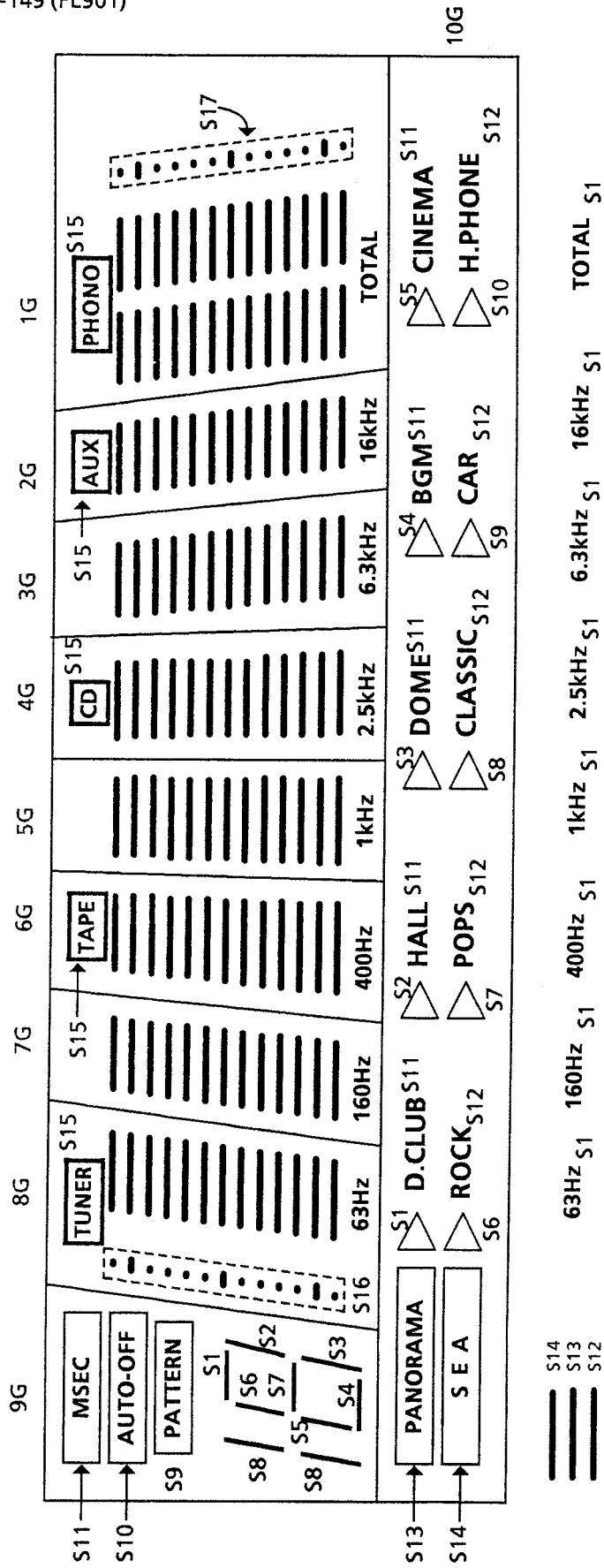
■ ELU0001-150 (FL201)



PIN CONNECTION

TERMINAL NO	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
ELECTRODE	F1	F1	NP	13G	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G				
TERMINAL NO						17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
ELECTRODE						P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	NP	F2	F2

F : Filament G : Grid P : Anode NP : No Pin



Pin Connection

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ELECTRODE	F1	F1	F1	NP	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15
TERMINAL NO.			20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
ELECTRODE			S16	S17	NP	NP	NP	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	F2

Notes F: Filament G: Grid S: Segment NP: No PIN

Disassembly Procedures

■ Removing the metal cover

1. Remove the 6 screws ① fastening the both sides and back of the metal cover to remove the cover.

■ Removing the front panel assembly

1. Remove the metal cover.
2. Disconnect the connectors J702, BC701, JA901 and P671.
3. Remove the screw ②.
4. Release the 3 hooks to remove the assembly.

■ Removing the rear panel

1. Remove the metal cover.
2. Remove the 2 screws ③ in the broken line to remove the heat sink cover (Figure 3).
3. Remove the other screws ③.
4. Release the 2 hooks to remove the rear panel.

■ Removing the main circuit board

1. Remove the metal cover.
2. Remove the rear panel.
3. Remove the source selector & sea circuit board.
4. Remove the 3 screws ④ fixing the main circuit board to remove the circuit board.
(If necessary, remove the circuit boards on the main circuit board.)

■ Removing the display circuit board

1. Remove the front panel assembly.
2. Remove the mic mixing knob.
3. Remove the 1 screw ⑤ fixing the mic mixing circuit board to remove the mic mixing circuit board.
4. Remove the other screws ⑤ to remove the circuit board.
(Take care not to damage the pins of JA902 when disconnecting it.)

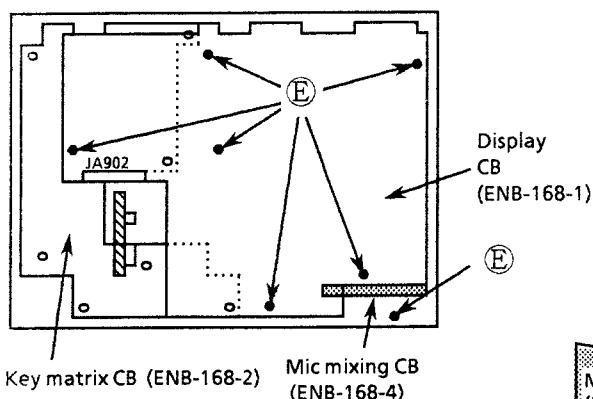


Figure 4 Behind the front panel assembly

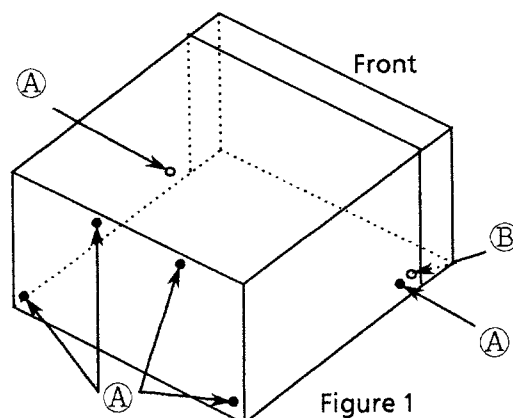


Figure 1

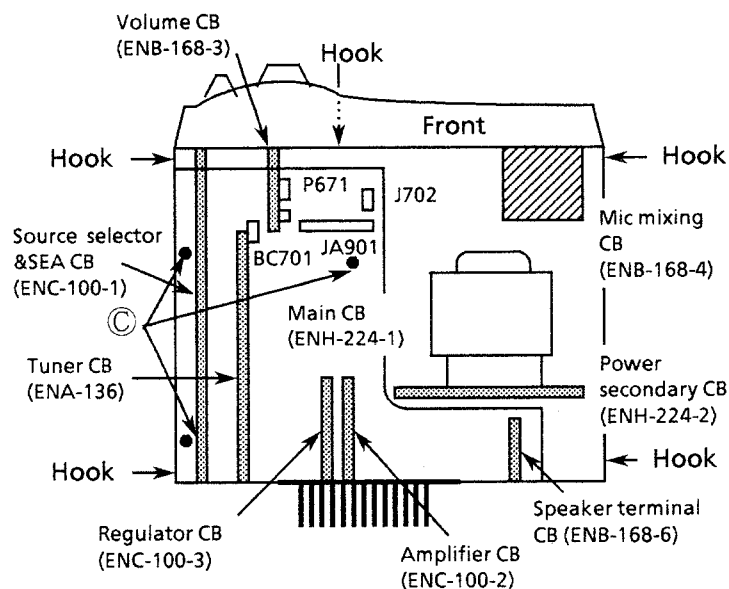


Figure 2 Top view

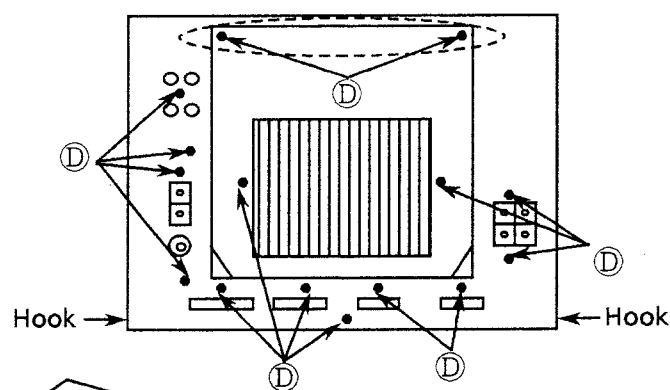


Figure 3 Rear view

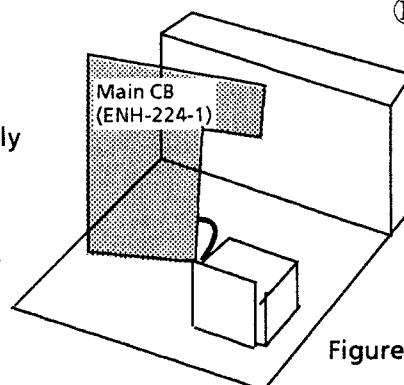
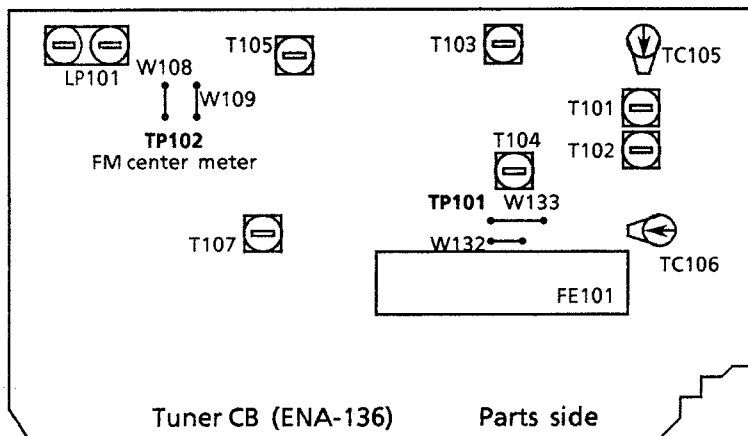
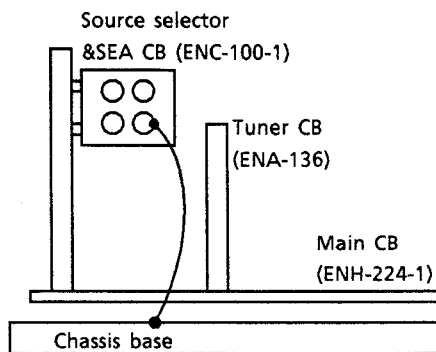


Figure 5 When checking

Adjustment Procedures

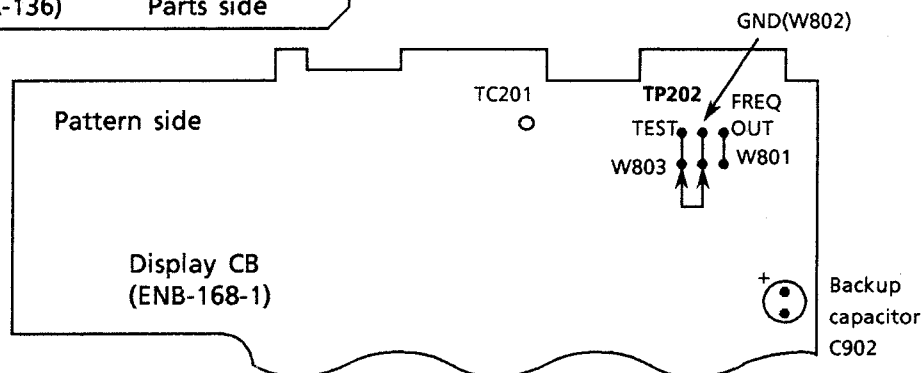
Note :

The ground of the tuner circuit board is connected to the main circuit board through the chassis base and the rear panel.
When servicing the tuner circuit board without the rear panel, connect the chassis base and the ground of the AUX input terminal.



Clock Adjustment

1. After connecting W803 and W802 with some wire as shown in the figure below, connect ac power cord into ac outlet.
2. Confirm that the display is off and remove the wire.
3. Connect a frequency counter to W801 and W802.
4. Adjust TC201 so that the frequency becomes $34952.5 \pm 0.15\text{Hz}$.



(1) Tuning voltage

Confirm the voltages at TP101 is within the standard values shown in the table below. If the voltages are not satisfied, replace FE101 for FM, adjust T103 for MW and adjust T104 for LW.

FM Tuning voltage (Unit : V)

Area	Frequency			
	64.0MHz	74.0MHz	87.5MHz	108MHz
East Europe	—	—	—	—
the U.K. , Continental Europe, U.S.A. , Canada, Australia, Universal	—	—	$1.6 \pm 1.0 (V)$	$8.0 \pm 2.0 (V)$

AM Tuning voltage (Unit : V)

Area	Frequency (MW)							Frequency (LW)		
	522KHz	530KHz	531KHz	1600KHz	1602KHz	1629KHz	1710KHz	144kHz	290kHz	353kHz
Italy	0.9 ± 0.2	—	—	—	—	7.5 ± 0.8	—	0.8 ± 0.4	5.7 ± 0.6	—
the U.K. , Continental Europe	0.9 ± 0.2	—	—	—	—	7.5 ± 0.8	—	0.8 ± 0.4	—	8.0 ± 0.9
U.S.A. , Canada	—	0.9 ± 0.2	—	—	—	—	8.0 ± 0.8	—	—	—
Australia	0.9 ± 0.2	—	—	—	—	7.5 ± 0.8	—	—	—	—
Universal (Channel space9kHz)	—	—	1.0 ± 0.2	—	7.2 ± 0.7	—	—	—	—	—
Universal (Channel space10kHz)	—	0.9 ± 0.2	—	7.2 ± 0.7	—	—	—	—	—	—

(2) FM center meter

Receive a broadcast by using the function of 'AUTO STOP'.

Adjust T105 (detector coil) so that the voltage at TP102 becomes $0 \pm 1.5\text{mV}$.

(3) MW Tracking

Adjust T101 (antenna coil) to obtain the best receiving sensitivity on 600kHz or 603kHz.

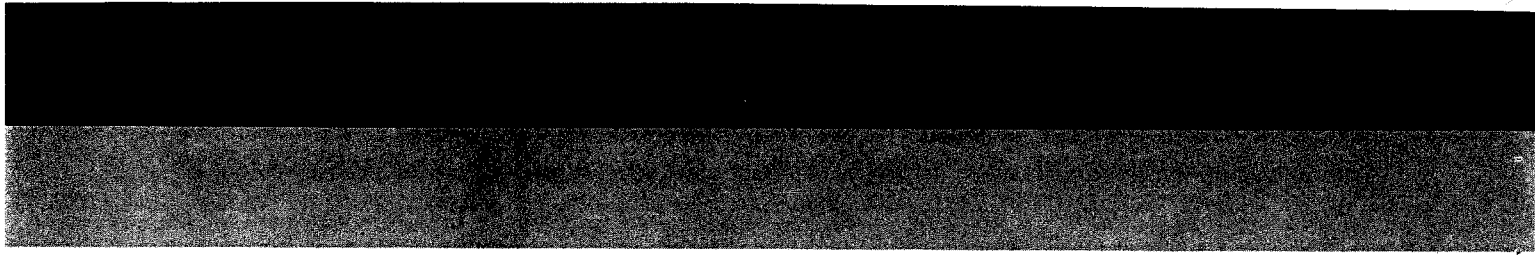
Adjust TC105 (antenna trimmer) to obtain the best receiving sensitivity on 1400kHz or 1404kHz.

(4) LW Tracking

Adjust T102 (antenna coil) to obtain the best receiving sensitivity on 164kHz.

Adjust TC106 (antenna trimmer) to obtain the best receiving sensitivity on 353kHz or 245kHz

RX-MXS6BK



JVC

VICTOR COMPANY OF JAPAN, LIMITED
AUDIO PRODUCTS DIVISION, 1644, Shimotsuruma, Yamato-shi, Kanagawa-ken, 242, JAPAN

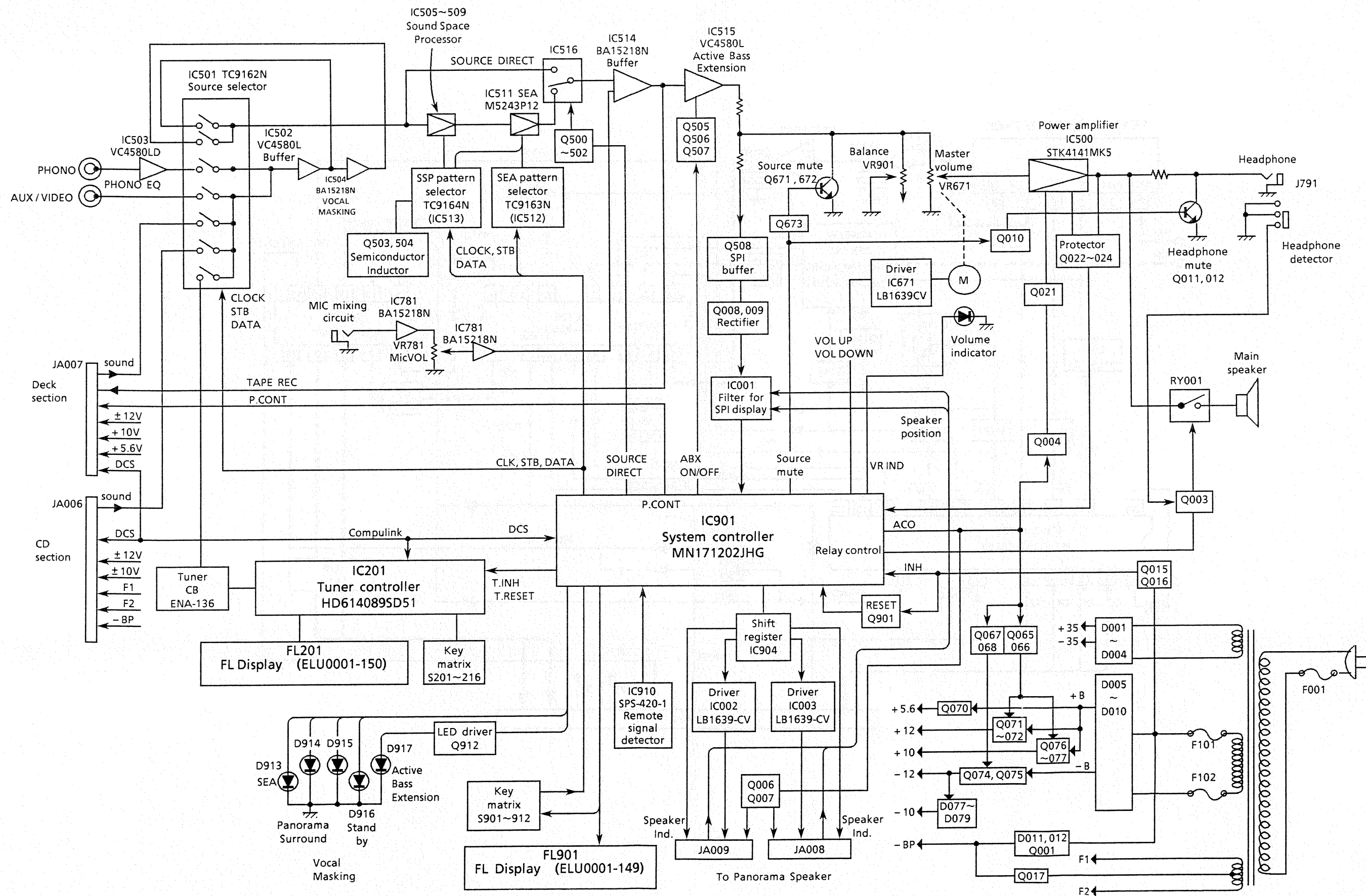
(No. 20415)



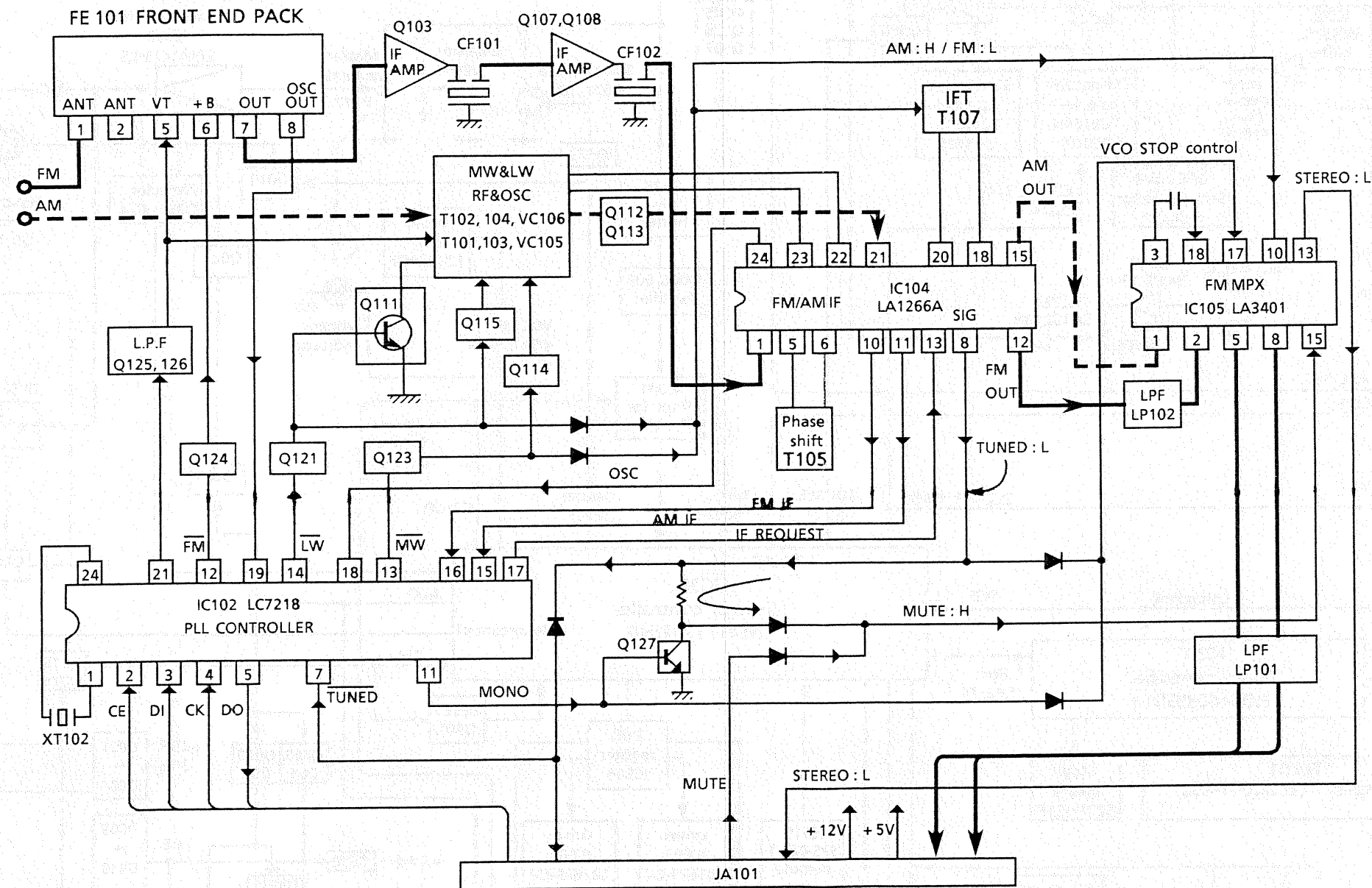
Printed in Japan
9303 (S)

Block Diagrams

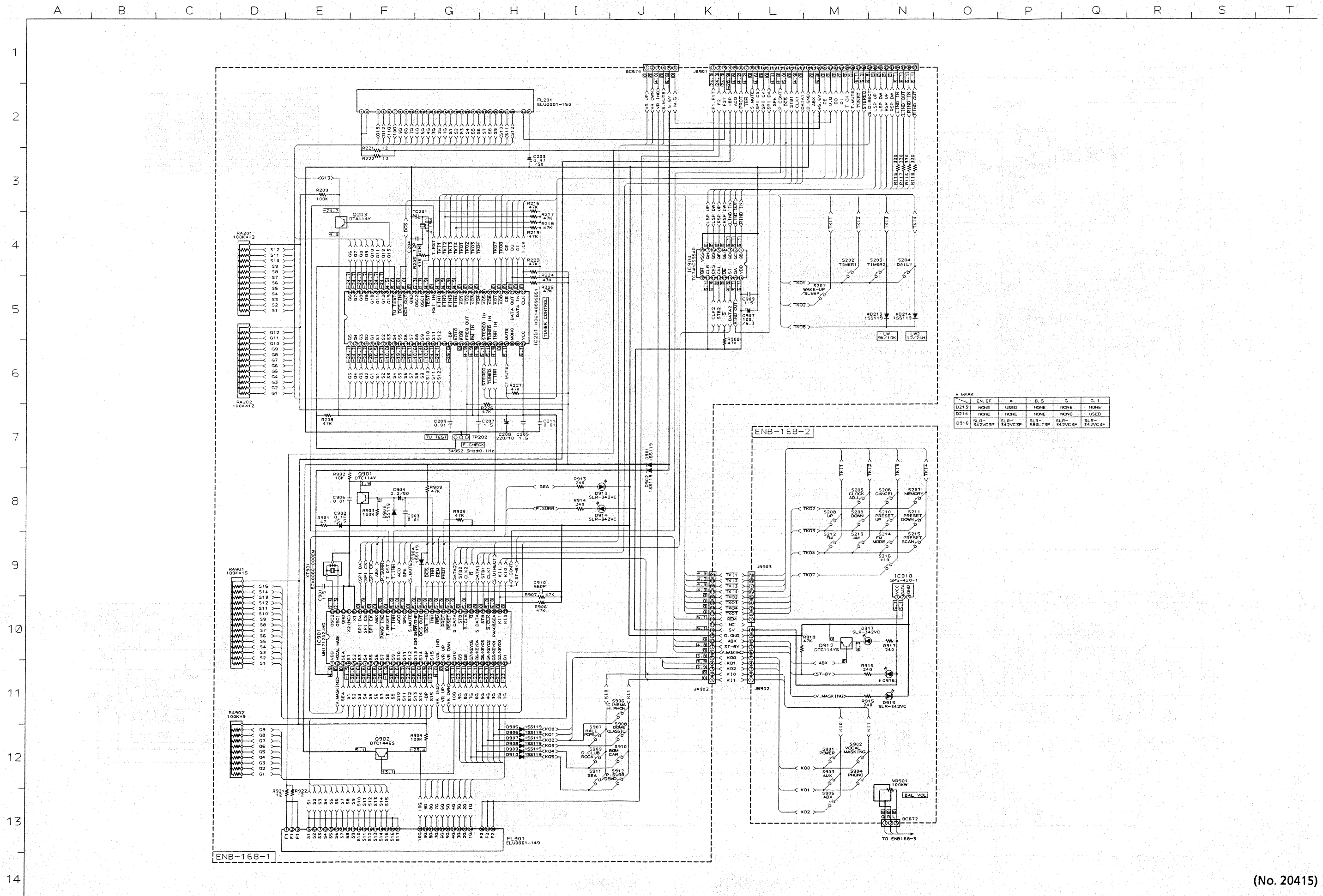
■ System



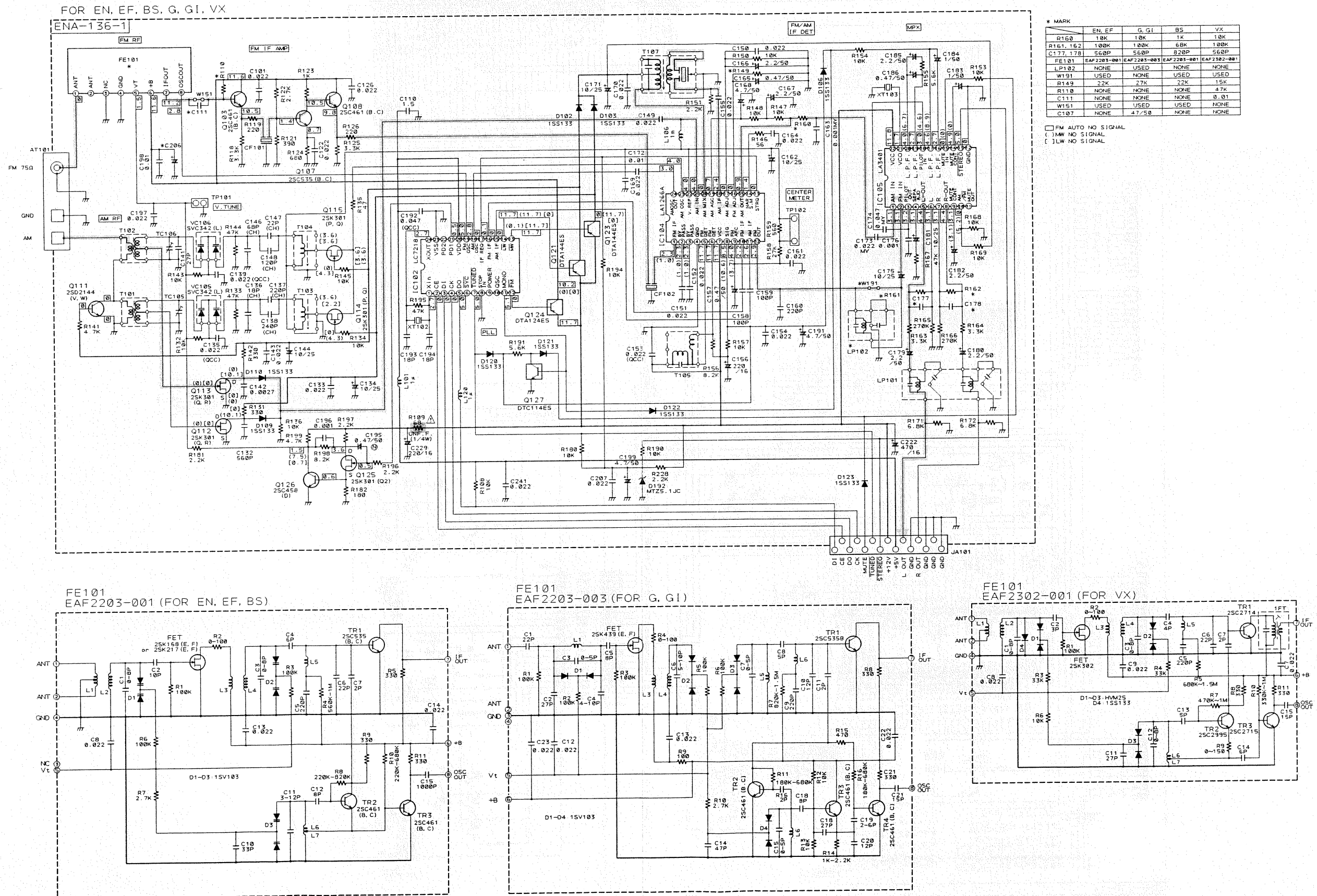
■ Tuner



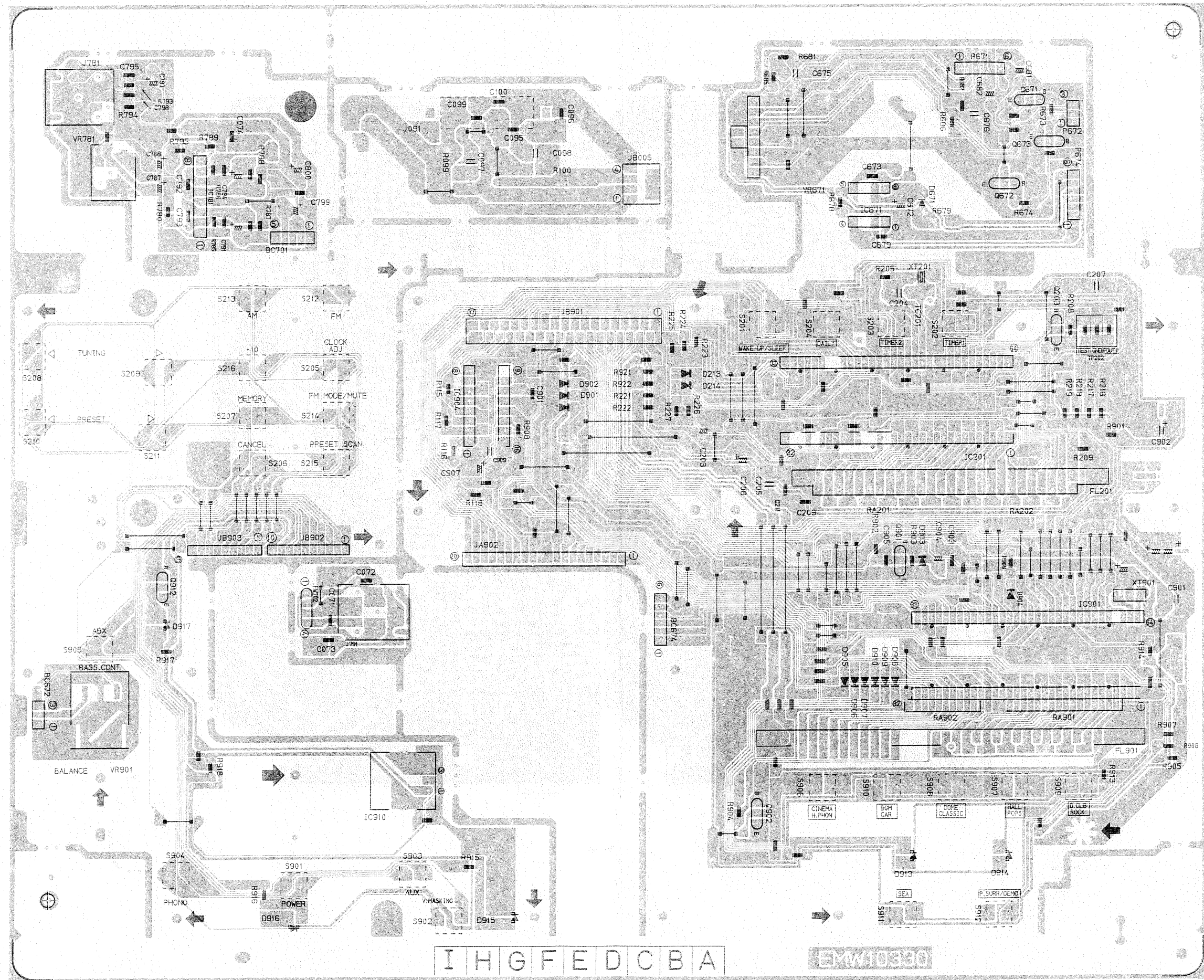
(3) System Control & Key Matrix Section

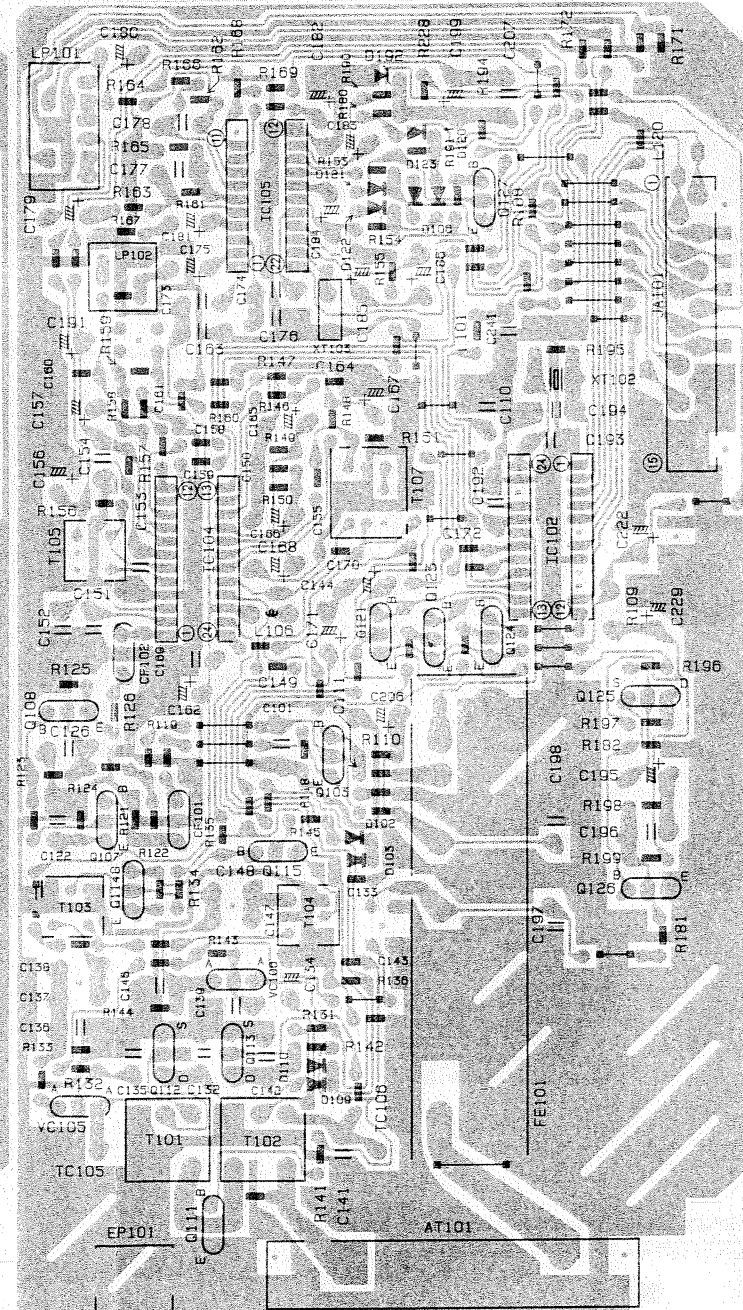


(4) Tuner Section (with LW)



(3) Display, Mic AMP & Volume CB (ENB-168)





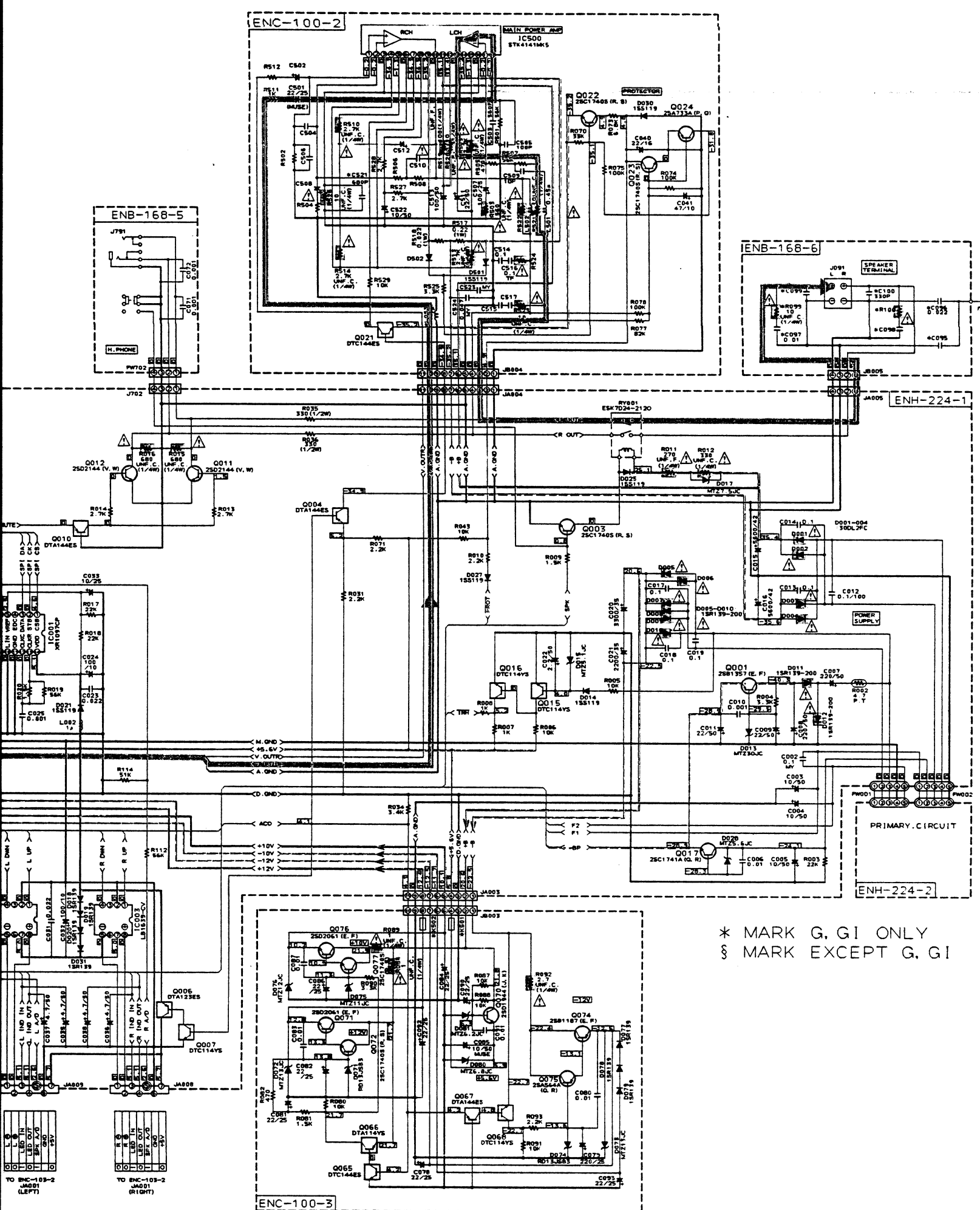
MOMOS

(1) Amplifier, Regulator, Mic AMP and Supply Section

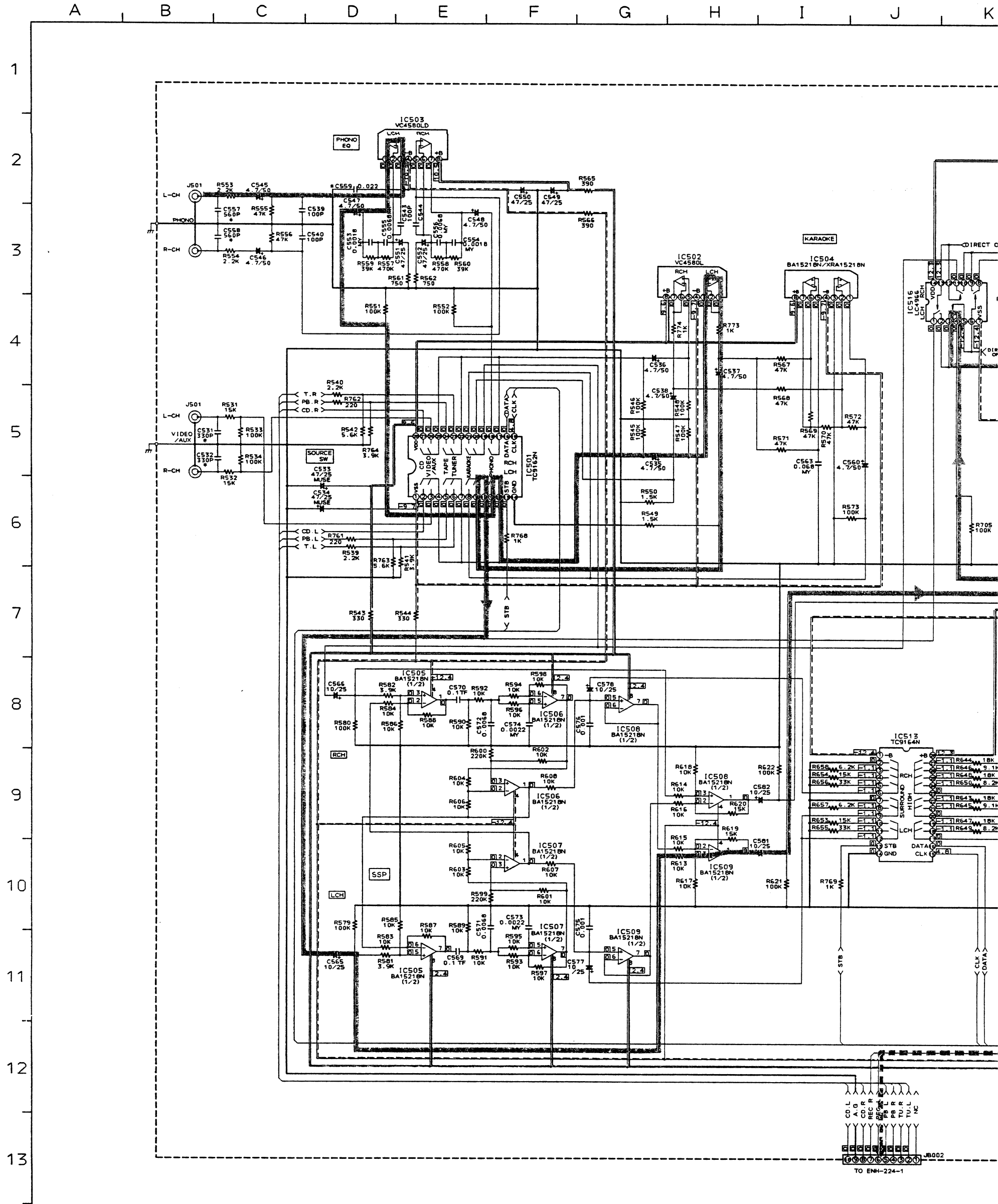


1.  indicates +B power supply.
 2.  indicates -B power supply.
 3.  indicates main signal path.
 4.  indicates recording signal path.
5. When replacing the parts in the shaded area () and those marked with  , be sure to use the designated parts to ensure safety.
6. This is the standard circuit diagram.
- The design and contents are subject to change without notice.

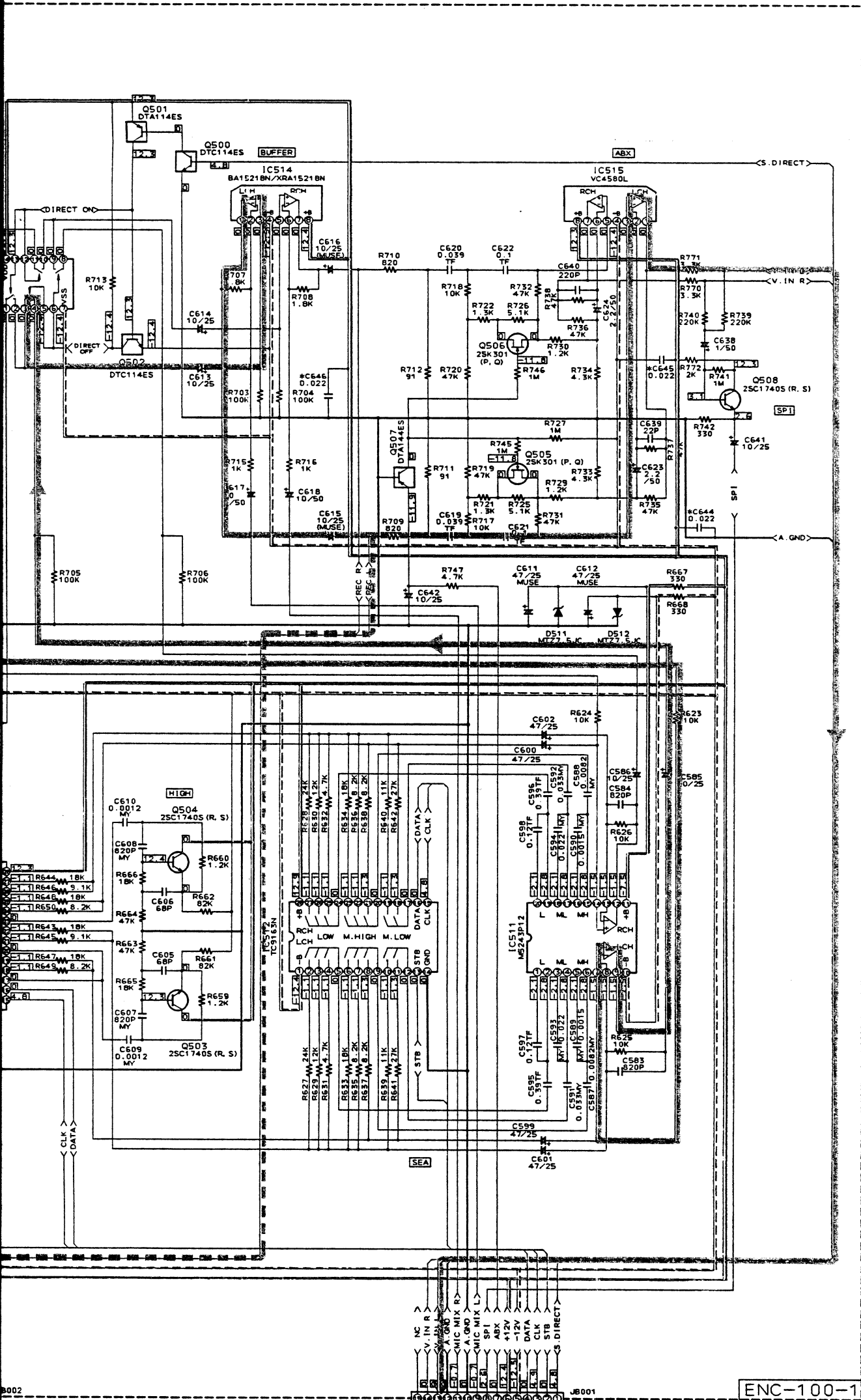
J K L M N O P Q R S



(2) Input Selector & SEA Section

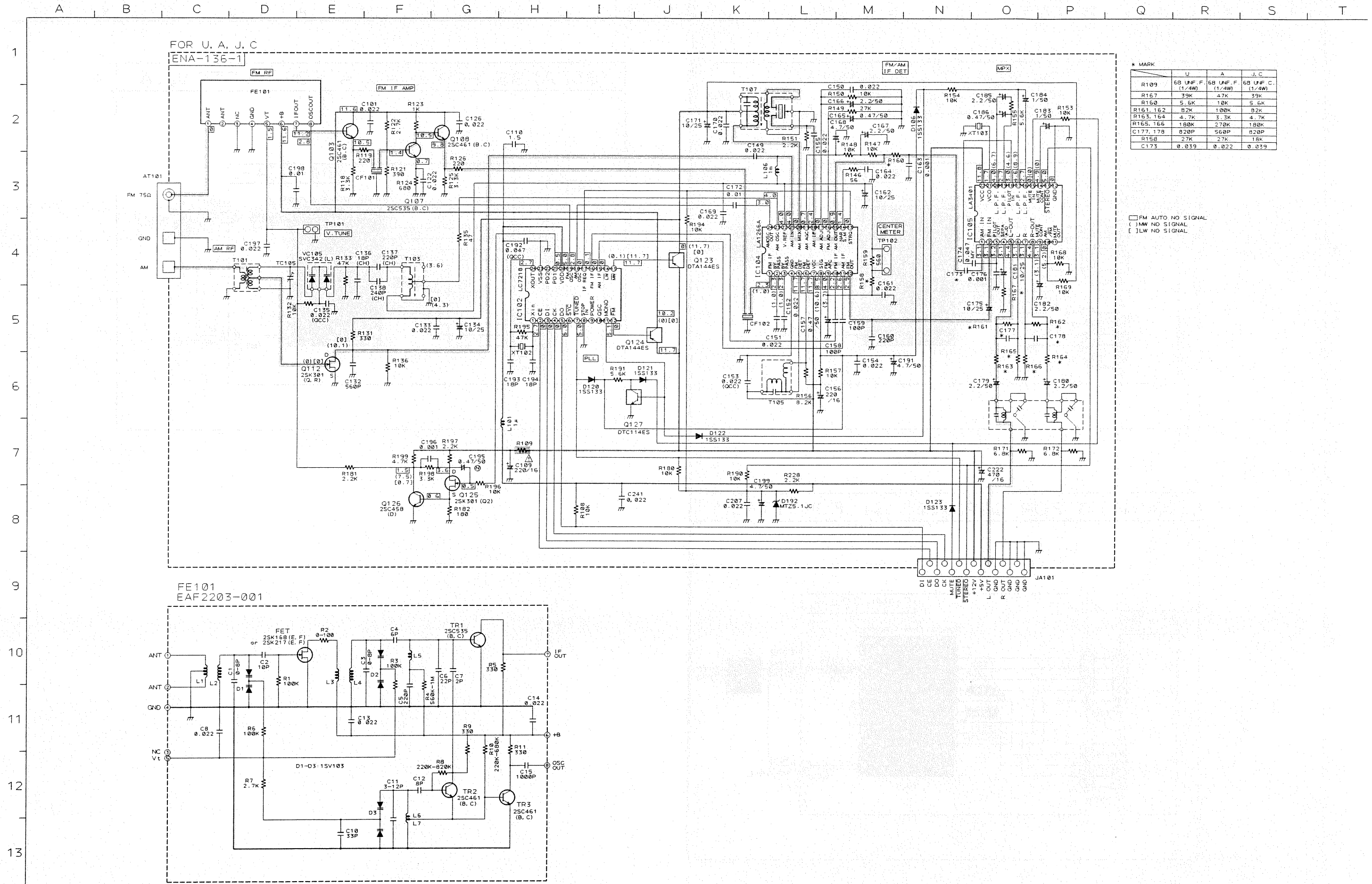


K L M N O P Q R S



* MARK			
SYMBOL NO.	A. EN. EF. BS	G. G1	
C531, 532	NONE	USED	
C557, 558	NONE	USED	
C559	NONE	USED	
C644-646	NONE	USED	

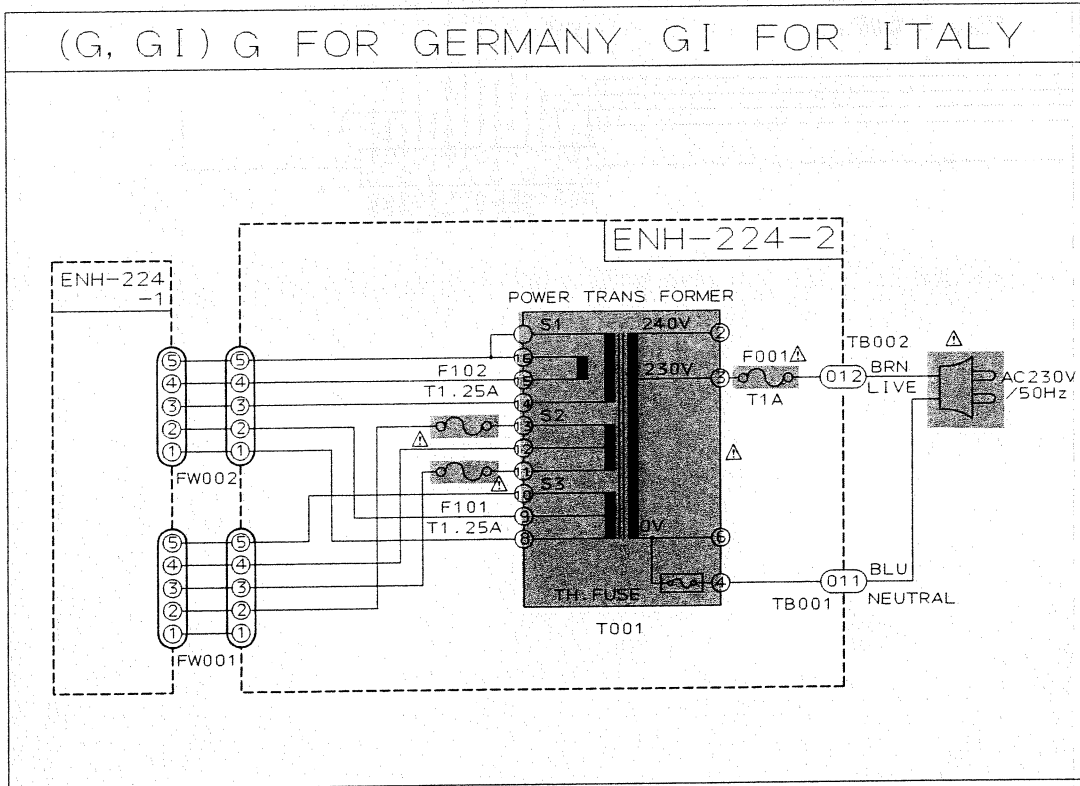
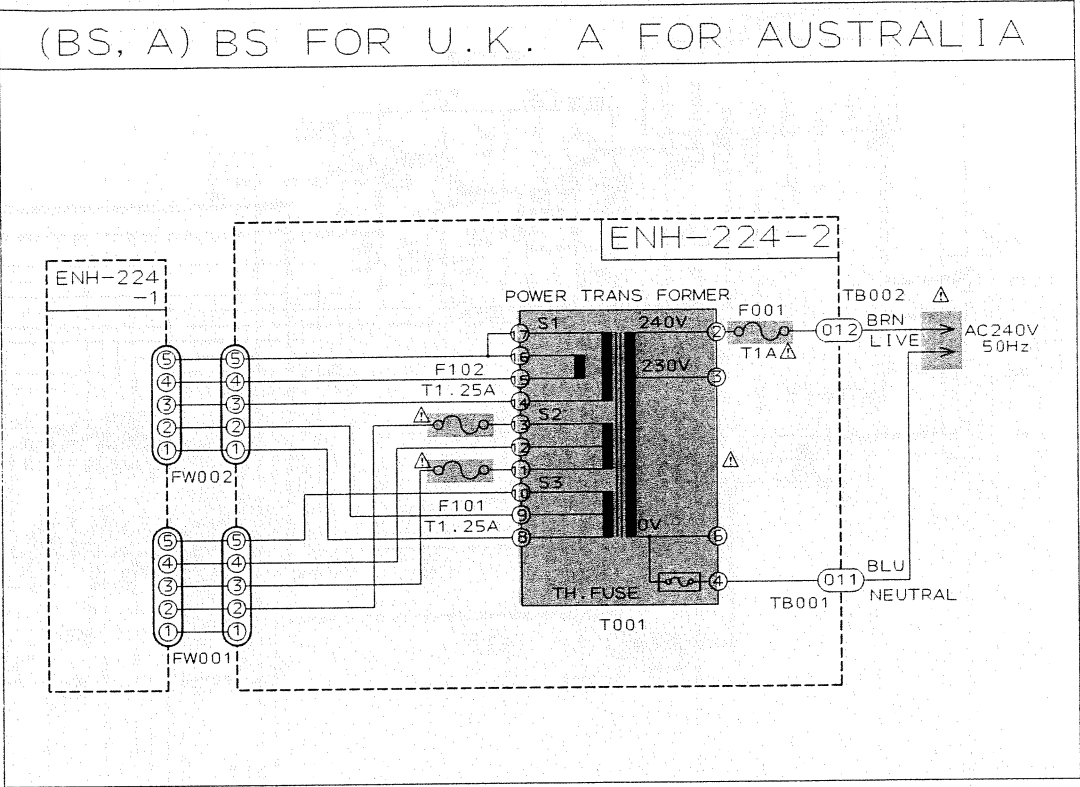
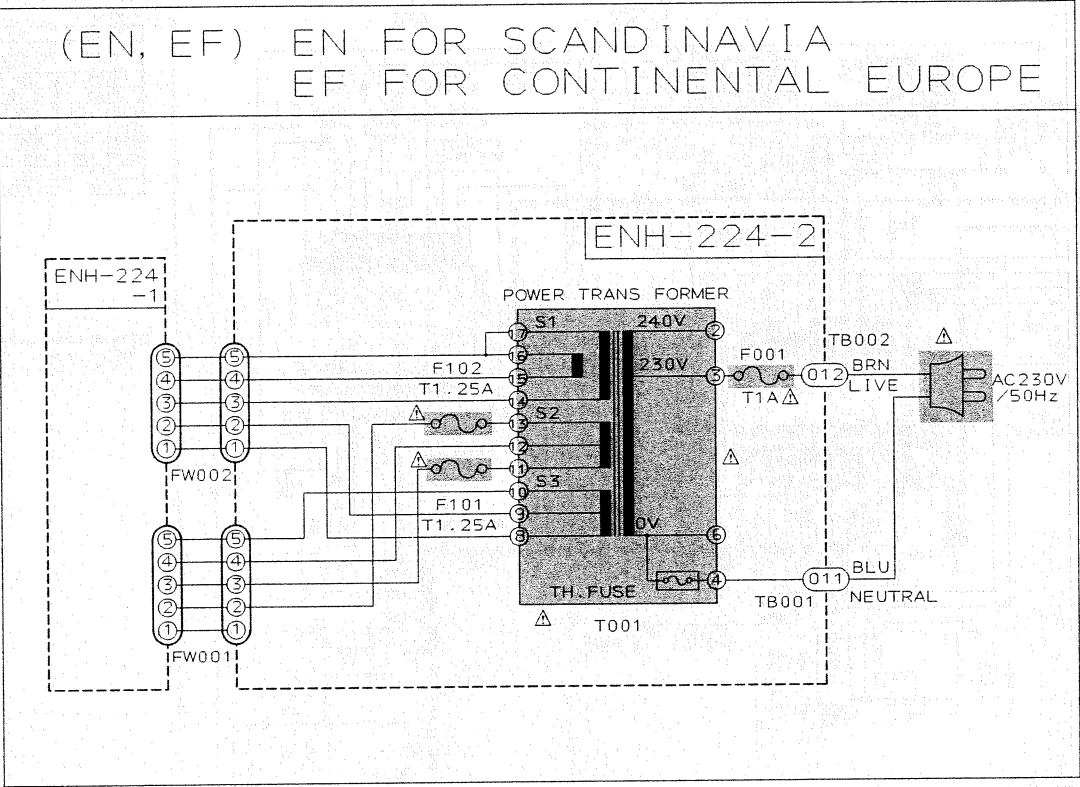
(5) Tuner Section (without LW)



(6) Power Primary Section

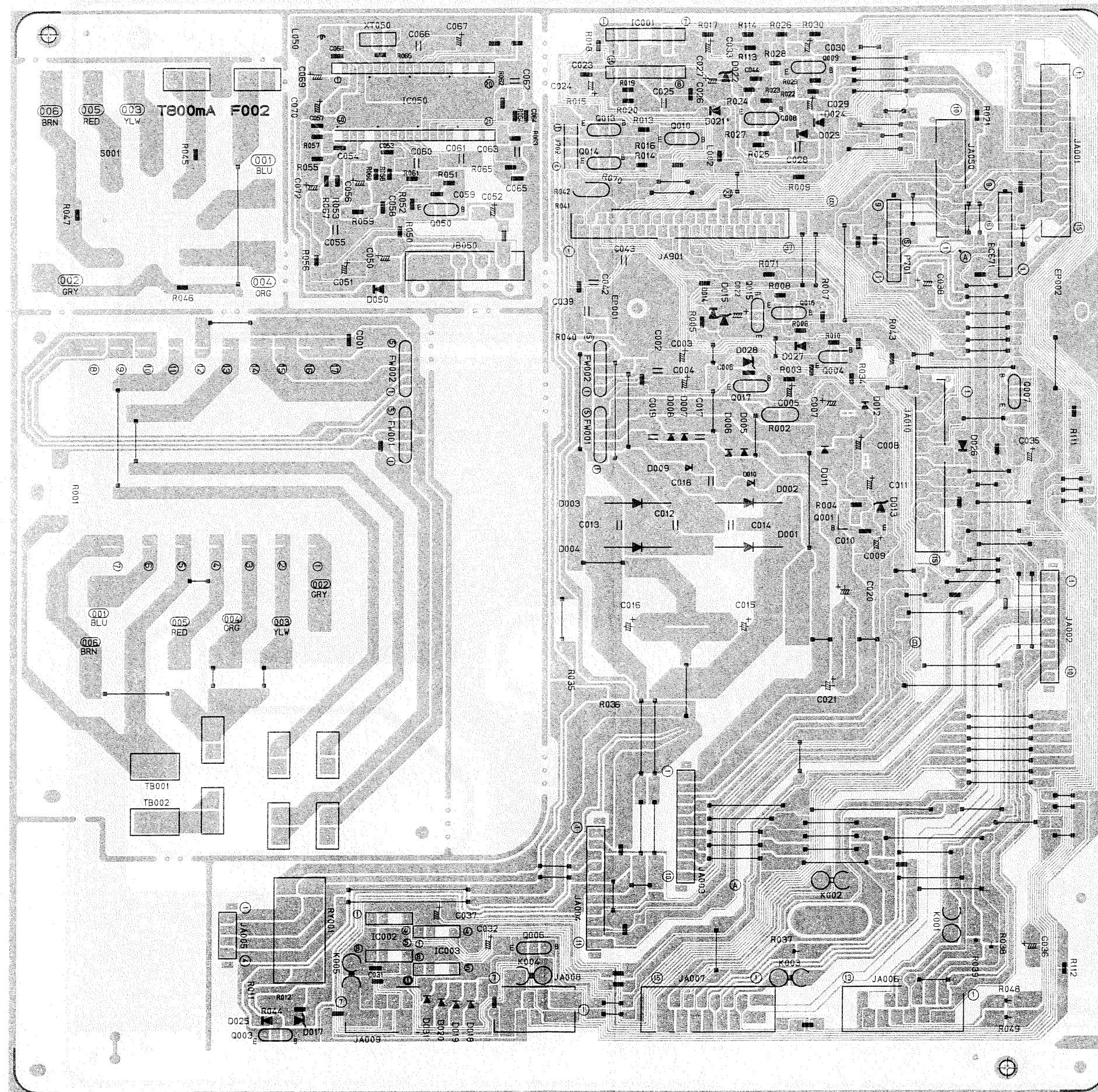
A B C D E F G H I J K L M N O P Q R S T

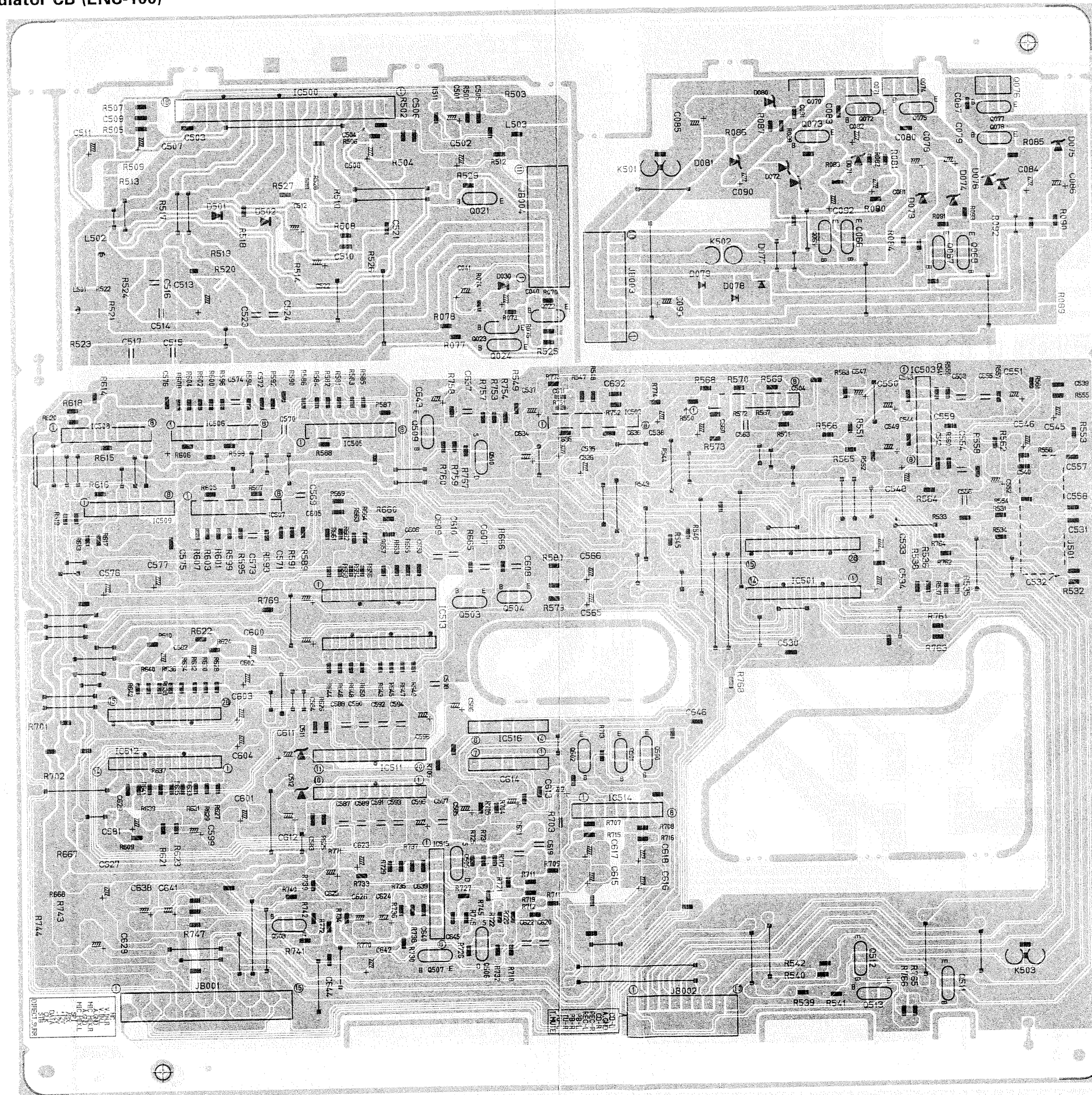
1
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Printed Circuit Boards

(1) Main & Power Primary CB (ENH-224)





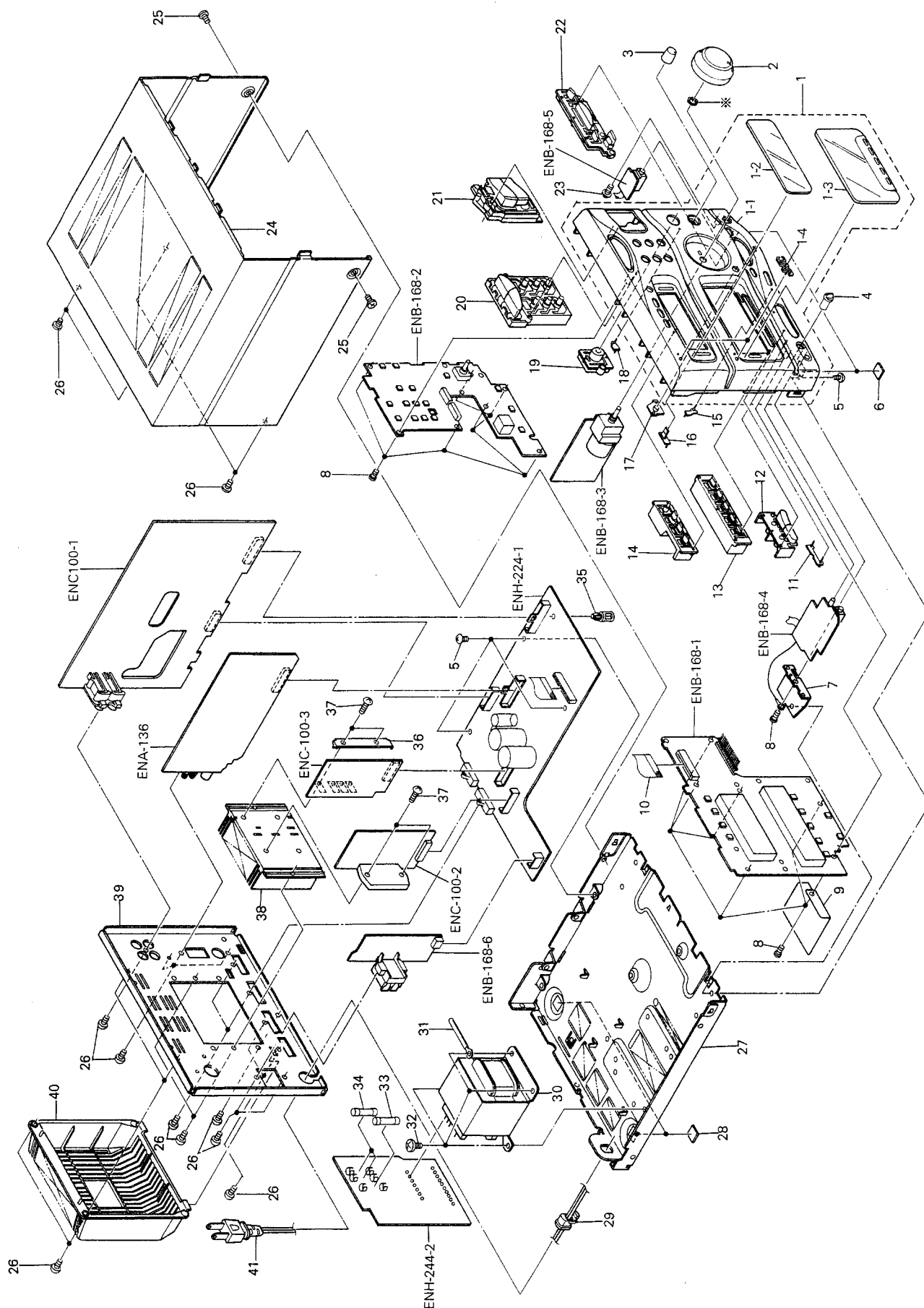
PARTS LIST

Note : All printed circuit boards and its assemblies are not available as service parts.

Contents

General Exploded View and Parts List	2-2
Printed Circuit Board Ass'y and Parts List	2-5
■ ENH-224 ☐ Main & Power Primary PC Board Ass'y	2-5
■ ENA-136 ☐ Tuner PC Board Ass'y	2-7
■ ENB-168 ☐ Display, Mic AMP. & Volume PC Board Ass'y	2-10
■ ENC-100 ☐ Selector, Amplifier & Regulator PC Board Ass'y	2-13
Accessories List	2-16
Packing Materials and Part Numbers	2-17

General Exploded View and Parts List



※※ mark indicates attached part.

■ Parts List

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1	EFP-RXMXS6BKE (S	FRONT PANEL ASSY	1		
	1-1	E102684-013SM	FRONT PANEL	1		
	1-2	E308421-001SM	WINDOW SCREEN	1		
	1-3	E308423-008	WINDOW SCREEN	1		
	1-4	E406971-221	JVC MARK	2		
	2	E308414-001SS	VOLUME KNOB	1		
	3	E75737-008	KNOB	1	BALANCE	
	4	E407233-002	KNOB	1	MIC	
	5	SBSG3008CC	SCREW	4		
	6	E75896-001	SPACER	2	FRONT FOOT	
	7	E407580-001SM	BRACKET	1		
	8	SDSF2608Z	SCREW	14		
	9	E308547-002	SHIELD PLATE ASSY	1		
	10	EWR637K-22TTJ3	FLAT WIRE	1	FW901	
	11	E407438-001SM	INDICATOR LENS	1		
	12	E308427-001SM	PUSH BUTTON	1		
	13	E308426-001SM	PUSH BUTTON	1	SEA	
	14	E308425-001SM	PUSH BUTTON	1	TIMER	
	15	E407440-001SM	INDICATOR LENS	1		
	16	E407437-001SM	POWER INDICATOR	1		
	17	E407431-001SM	REMOCON LENS	1		
	18	E407439-001SM	INDICATOR LENS	1		
	19	E308428-001SM	PUSH BUTTON	1	BASS	
	20	E207788-001SM	PUSH BUTTON	1	TUNER BAND	A
		E207788-002SM	PUSH BUTTON	1	TUNER BAND	BS
		E207788-002SM	PUSH BUTTON	1	TUNER BAND	EF
		E207788-002SM	PUSH BUTTON	1	TUNER BAND	EN
		E207788-002SM	PUSH BUTTON	1	TUNER BAND	G
	21	E207858-001SM	PUSH BUTTON ASSY	1	TUNING / PRESET	GI
	22	E207794-001SM	PUSH BUTTON	1	POWER	
	23	E407098-001	SPECIAL SCREW	1		
	24	E207787-221	METAL COVER	1		
	25	SDSG3006M	SCREW	2		
	26	E73273-003	SPECIAL SCREW	19		
	27	E102616-003SS	CHASSIS BASE	1		
	28	E75896-006	FELT SPACER	2	REAR FOOT	
⚠	29	QHS3876-162	CORD STOPPER	1		A
⚠		QHS3876-162	CORD STOPPER	1		EF
⚠		QHS3876-162	CORD STOPPER	1		EN
⚠		QHS3876-162	CORD STOPPER	1		G
⚠		QHS3876-162	CORD STOPPER	1		GI
⚠		QHS3876-162BS	CORD STOPPER	1		BS
⚠	30	ETP1100-46EAJ	POWER TRANSFORMER	1	T001	A
⚠		ETP1100-46EAJ	POWER TRANSFORMER	1	T001	EF
⚠		ETP1100-46EAJ	POWER TRANSFORMER	1	T001	EN
⚠		ETP1100-46EAJ	POWER TRANSFORMER	1	T001	G
⚠		ETP1100-46EAJ	POWER TRANSFORMER	1	T001	GI
⚠		ETP1100-46EAJBS	POWER TRANSFORMER	1	T001	BS
	31	E72018-001	WIRE CLAMP	1		
	32	E65389-004	SPECIAL SCREW	4		
⚠	33	QMF51E2-1R0J1	FUSE	1	F001 (T1A/250V)	A
⚠		QMF51E2-1R0J1BS	FUSE	1	F001 (T1A/250V)	BS
⚠		QMF51E2-1R0J1	FUSE	1	F001 (T1A/250V)	EF
⚠		QMF51E2-1R0J1	FUSE	1	F001 (T1A/250V)	EN

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
⚠		QMF51E2-1R0J1	FUSE	1	F001 (T1A/250V)	G
⚠		QMF51E2-1R0J1	FUSE	1	F001 (T1A/250V)	GI
⚠	34	QMF51E2-1R25J1	FUSE	2	F101, F102 (T1.25A/250V)	A
⚠		QMF51E2-1R2J1BS	FUSE	2	F101, F102 (T1.25A/250V)	BS
⚠		QMF51E2-1R25J1	FUSE	2	F101, F102 (T1.25A/250V)	EF
⚠		QMF51E2-1R25J1	FUSE	2	F101, F102 (T1.25A/250V)	EN
⚠		QMF51E2-1R25J1	FUSE	2	F101, F102 (T1.25A/250V)	G
⚠		QMF51E2-1R25J1	FUSE	2	F101, F102 (T1.25A/250V)	GI
	35	E308544-001	FASTENER	1		
	36	E407434-001SM	LEAF SPRING	1		
	37	SBSG3014CC	SCREW	4		
	38	E308420-002SM	HEAT SINK	1		
	39	E207785-015SM	REAR PANEL	1		A
		E207785-015SM	REAR PANEL	1		BS
		E207785-014SM	REAR PANEL	1		EF
		E207785-014SM	REAR PANEL	1		EN
		E207785-014SM	REAR PANEL	1		G
		E207785-014SM	REAR PANEL	1		GI
	40	E207356-001SM	REAR COVER	1		
⚠	41	QMP25F0-244	POWER CORD	1		A
⚠		QMP5530-0085BS	POWER CORD	1		BS
⚠		QMP3900-200	POWER CORD	1		EF
⚠		QMP3900-200	POWER CORD	1		EN
⚠		QMP3900-200	POWER CORD	1		G
⚠		QMP3900-200	POWER CORD	1		GI
	—	E61029-005	NUMBER LABEL	1		
	—	QZL1031-101	SEV LABEL	1		EF
	—	E70027-001	APPROVAL LABEL	1		EN
	—	E407619-010	FTZ LABEL	1		G

⚠ SAFETY PARTS
The Marks for Designated Areas

A Australia BS the U.K. EN Scandinavia
 EF Continental Europe G Germany GI Italy
 No mark indicates all areas.

I.C.s

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC001	XR1097CP	I.C. EXAR JAPAN	
	IC002	LB1639-CV	I.C. SANYO	
	IC003	LB1639-CV	I.C. SANYO	

Δ : SAFETY PARTS

Diodes

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
Δ	D001	30DL2FC	SILICON NIHONINTER	
Δ	D002	30DL2FC	SILICON NIHONINTER	
Δ	D003	30DL2FC	SILICON NIHONINTER	
Δ	D004	30DL2FC	SILICON NIHONINTER	
	D005	1SR139-200	SILICON ROHM	
	D006	1SR139-200	SILICON ROHM	
	D007	1SR139-200	SILICON ROHM	
	D008	1SR139-200	SILICON ROHM	
	D009	1SR139-200	SILICON ROHM	
	D010	1SR139-200	SILICON ROHM	
	D011	1SR139-200	SILICON ROHM	
	D012	1SR139-200	SILICON ROHM	
	D013	MTZ30JC	ZENER ROHM	
	D014	1SS119	SILICON HITACHI	
	D015	MTZ5.1JC	ZENER ROHM	
	D017	MTZ7.5JC	ZENER ROHM	
	D018	1SR139-200	SILICON ROHM	
	D019	1SR139-200	SILICON ROHM	
	D020	1SR139-200	SILICON ROHM	
	D021	1SS119	SILICON HITACHI	
	D022	MTZ5.1JC	ZENER ROHM	
	D023	1SS119	SILICON HITACHI	
	D025	1SS119	SILICON HITACHI	
	D026	1SS119	SILICON HITACHI	
	D027	1SS119	SILICON HITACHI	
	D028	MTZ5.6JC	ZENER ROHM	
	D031	1SR139-200	SILICON ROHM	

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C002	QFV81HJ-104	0.1MF 50V T.FILM	
	C003	QETB1HM-106	10MF 50V ELECTRO	
	C004	QETB1HM-106	10MF 50V ELECTRO	
	C005	QETB1HM-106	10MF 50V ELECTRO	
	C006	QCVB1CM-103	0.01MF 16V CERAMIC	
	C007	QETB1HM-227	220MF 50V ELECTRO	
	C008	QETB1HM-227	220MF 50V ELECTRO	
	C009	QETB1HM-226	22MF 50V ELECTRO	
	C010	QCVB1HK-102	1000PF 50V CERAMIC	
	C011	QETB1HM-226	22MF 50V ELECTRO	
	C012	QFV82AJ-104	0.1MF 100V T.FILM	
	C013	QFN81HJ-104	0.1MF 50V MYLAR	
	C014	QFN81HJ-104	0.1MF 50V MYLAR	
	C015	EEW4208-568E	5600MF ELECTRO	
	C016	EEW4208-568E	5600MF ELECTRO	
	C017	QFV81HJ-104	0.1MF 50V T.FILM	
	C018	QFV81HJ-104	0.1MF 50V T.FILM	
	C019	QFV81HJ-104	0.1MF 50V T.FILM	
	C020	QETB1VM-338	3300MF 35V ELECTRO	
	C021	QETB1VM-228N	2200MF 35V ELECTRO	
	C022	QETB1HM-225	2.2MF 50V ELECTRO	
	C023	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C024	QETB1AM-107	100MF 10V ELECTRO	
	C025	QFLB1HJ-102	1000PF 50V MYLAR	
	C026	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C027	QETB1AM-107	100MF 10V ELECTRO	
	C028	QCF21HP-473	0.047MF 50V CERAMIC	
	C029	QETB1HM-105	1MF 50V ELECTRO	
	C030	QETB1EM-106	10MF 25V ELECTRO	
	C031	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C032	QETB1AM-107	100MF 10V ELECTRO	
	C033	QETB1EM-106	10MF 25V ELECTRO	
	C035	QETB1HM-475	4.7MF 50V ELECTRO	
	C036	QETB1HM-475	4.7MF 50V ELECTRO	
	C037	QETB1HM-475	4.7MF 50V ELECTRO	
	C038	QETB1HM-475	4.7MF 50V ELECTRO	
	C039	QCY21HK-103	0.01MF 50V CERAMIC	A
	C039	QCY21HK-103	0.01MF 50V CERAMIC	B
	C039	QCY21HK-103	0.01MF 50V CERAMIC	CBS
	C042	QCY21HK-103	0.01MF 50V CERAMIC	A
	C042	QCY21HK-103	0.01MF 50V CERAMIC	B
	C042	QCY21HK-103	0.01MF 50V CERAMIC	CBS

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
Δ	R002	PTH61G25AR4R7M	22K 1/6W FUSIBLE RES	SI
	R003	QRD167J-223	22K 1/6W CARBON	
	R004	QRD167J-332	3.3K 1/6W CARBON	
	R005	QRD167J-103	10K 1/6W CARBON	
	R006	QRD167J-103	10K 1/6W CARBON	
	R007	QRD167J-102	1K 1/6W CARBON	
	R008	QRD167J-102	1K 1/6W CARBON	
	R009	QRD167J-152	1.5K 1/6W CARBON	
	R010	QRD167J-222	2.2K 1/6W CARBON	
	R011	QRZ0077-271	270 1/4W FUSIBLE	
Δ	R012	QRD14CJ-331S	330 1/4W UNF. CARBON	
	R013	QRD167J-272	2.7K 1/6W CARBON	
	R014	QRD167J-272	2.7K 1/6W CARBON	
Δ	R015	QRD14CJ-681S	680 1/4W UNF. CARBON	
Δ	R016	QRD14CJ-681S	680 1/4W UNF. CARBON	
	R017	QRD167J-223	22K 1/6W CARBON	
	R018	QRD167J-223	22K 1/6W CARBON	
	R019	QRD167J-563	56K 1/6W CARBON	
	R020	QRD167J-152	1.5K 1/6W CARBON	
	R021	QRD167J-331	330 1/6W CARBON	
	R022	QRD167J-512	5.1K 1/6W CARBON	
	R023	QRD167J-562	5.6K 1/6W CARBON	
	R024	QRD167J-104	100K 1/6W CARBON	
	R025	QRD167J-103	10K 1/6W CARBON	
	R026	QRD167J-133	13K 1/6W CARBON	
	R027	QRD167J-104	100K 1/6W CARBON	
	R028	QRD167J-102	1K 1/6W CARBON	
	R029	QRD167J-204	200K 1/6W CARBON	
	R030	QRD167J-224	220K 1/6W CARBON	
	R031	QRD167J-222	2.2K 1/6W CARBON	
	R034	QRD167J-472	4.7K 1/6W CARBON	
	R035	QRD12CJ-331S	330 1/2W R.NETWORK	
	R036	QRD12CJ-331S	330 1/2W R.NETWORK	
Δ	R040	QRD14CJ-1R0S	1 1/4W UNF. CARBON	
Δ	R041	QRZ0077-8R2	8.2 1/4W FUSIBLE	
	R042	PTH8L07BB2R2N1B	2.2K 1/8W POSITIVE THER	HE
	R043	QRD167J-103	10K 1/6W CARBON	
Δ	R048	QRZ0077-4R7	4.7 1/4W FUSIBLE	
	R071	QRD167J-222	2.2K 1/6W CARBON	
	R111	QRD167J-563	56K 1/6W CARBON	
	R112	QRD167J-563	56K 1/6W CARBON	
	R113	QRD167J-513	51K 1/6W CARBON	
	R114	QRD167J-513	51K 1/6W CARBON	

Δ : SAFETY PARTS

Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J702	E33754-001	TIE BAND	
	K002	EMV7122-004	CONNECTOR(4PIN)	D
	K002	ENZ8101-007	INDUCTOR	D
	K006	ENZ8101-007	INDUCTOR	D
	L002	EQL4004-1R0	INDUCTOR	
	P701	EMV5142-905	PLUG ASSY(9PIN)	
BC671	EWS296-0118	SOCKET WIRE(9PIN)		
EP001	E70859-001	EARTH PLATE		A
EP001	E70859-001	EARTH PLATE		B
EP001	E70859-001	EARTH PLATE		CBS
EP002	E70859-001	EARTH PLATE		
FT001	VMZ0087-001	FUSE CLIP		
FT002	VMZ0087-001	FUSE CLIP		
FT101	VMZ0087-001	FUSE CLIP		
FT102	VMZ0087-001	FUSE CLIP		
FT103	VMZ0087-001	FUSE CLIP		
FT104	VMZ0087-001	FUSE CLIP		
FW001	EWR35B-16SST	FLAT WIRE(5PIN)		
FW002	EWR35B-16SST	FLAT WIRE(5PIN)		
JA001	EMV5140-015	PLUG ASSY(15PIN)		
JA002	EMV5125-010	PLUG ASSY(10PIN)		
JA003	EMV5125-010	PLUG ASSY(10PIN)		
JA004	EMV5125-011	PLUG ASSY(11PIN)		
JA005	EMV5125-004	PLUG ASSY(4PIN)		
JA006	EMV7127-013	CONNECTOR(13PIN)		
JA007	EMV7127-015	CONNECTOR(15PIN)		
JA008	EMV7127-007	CONNECTOR(7PIN)		
JA009	EMV7127-007	CONNECTOR(7PIN)		
JA010	EMV5140-015	PLUG ASSY(15PIN)		
JA901	EMV7123-037	CONNECTOR(37PIN)		
RY001	ESK7D24-2120	RELAY		
TB001	EMZ4001-001	TAB		
TB002	EMZ4001-001	TAB		

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C133	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C134	QETB1EM-106	10MF 25V ELECTRO	
	C135	QCC21EM-223	0.022MF 25V CERAMIC	
	C136	QCT26CH-180	18PF 50V CERAMIC	
	C137	QCT26CH-221	220PF 50V CERAMIC	
	C138	QCT26CH-241	240PF 50V CERAMIC	
	C139	QCC21EM-223	0.022MF 25V CERAMIC	D
	C139	QCC21EM-223	0.022MF 25V CERAMIC	F
	C139	QCC21EM-223	0.022MF 25V CERAMIC	G
	C139	QCC21EM-223	0.022MF 25V CERAMIC	D
	C141	QCS21HJ-270	27PF 50V CERAMIC	E
	C141	QCS21HJ-270	27PF 50V CERAMIC	F
	C141	QCS21HJ-270	27PF 50V CERAMIC	G
	C142	QCY21HK-272	2700PF 50V CERAMIC	D
	C142	QCY21HK-272	2700PF 50V CERAMIC	E
	C142	QCY21HK-272	2700PF 50V CERAMIC	F
	C142	QCY21HK-272	2700PF 50V CERAMIC	G
	C143	QCHB1EZ-223	0.022MF 25V CERAMIC	D
	C143	QCHB1EZ-223	0.022MF 25V CERAMIC	E
	C143	QCHB1EZ-223	0.022MF 25V CERAMIC	F
	C143	QCHB1EZ-223	0.022MF 25V CERAMIC	G
	C144	QETB1EM-106	10MF 25V ELECTRO	D
	C144	QETB1EM-106	10MF 25V ELECTRO	E
	C144	QETB1EM-106	10MF 25V ELECTRO	F
	C144	QETB1EM-106	10MF 25V ELECTRO	G
	C146	QCT26CH-680	68PF 50V CERAMIC	D
	C146	QCT26CH-680	68PF 50V CERAMIC	E
	C146	QCT26CH-680	68PF 50V CERAMIC	F
	C146	QCT26CH-680	68PF 50V CERAMIC	G
	C147	QCT26CH-220	22PF 50V CERAMIC	D
	C147	QCT26CH-220	22PF 50V CERAMIC	E
	C147	QCT26CH-220	22PF 50V CERAMIC	F
	C147	QCT26CH-220	22PF 50V CERAMIC	G
	C148	QCT26CH-121	120PF 50V CERAMIC	D
	C148	QCT26CH-121	120PF 50V CERAMIC	E
	C148	QCT26CH-121	120PF 50V CERAMIC	F
	C148	QCT26CH-121	120PF 50V CERAMIC	G
	C149	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C150	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C151	QCF21HP-223	0.022MF 50V CERAMIC	
	C152	QCF21HP-223	0.022MF 50V CERAMIC	
	C153	QCC21EM-223	0.022MF 25V CERAMIC	
	C154	QCF21HP-223	0.022MF 50V CERAMIC	
	C155	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C156	QETB1CM-227	220MF 16V ELECTRO	
	C157	QETB1HM-474	0.47MF 50V ELECTRO	
	C158	QCB1HK-101	100PF 50V CERAMIC	
	C159	QCB1HK-101	100PF 50V CERAMIC	
	C160	QCB1HK-221	220PF 50V CERAMIC	
	C161	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C162	QETB1EM-106	10MF 25V ELECTRO	
	C163	QFLB1HJ-102	1000PF 50V MYLAR	
	C164	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C165	QETB1HM-474	0.47MF 50V ELECTRO	
	C166	QETB1HM-225	2.2MF 50V ELECTRO	
	C167	QETB1HM-225	2.2MF 50V ELECTRO	
	C168	QETB1HM-475	4.7MF 50V ELECTRO	
	C169	QCF21HP-223	0.022MF 50V CERAMIC	
	C170	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C171	QETB1EM-106	10MF 25V ELECTRO	
	C172	QCVB1CM-103	0.01MF 16V CERAMIC	
	C173	QFLB1HJ-223	0.022MF 50V MYLAR	
	C174	QFLB1HJ-473	0.047MF 50V MYLAR	
	C175	QETB1EM-106	10MF 25V ELECTRO	
	C176	QCY21HK-102	1000PF 50V CERAMIC	C
	C177	QCS21HJ-561	560PF 50V CERAMIC	D
	C177	QCS21HJ-561	560PF 50V CERAMIC	E
	C177	QCS21HJ-561	560PF 50V CERAMIC	F
	C177	QCS21HJ-821	820PF 50V CERAMIC	G
	C177	QCS21HJ-561	560PF 50V CERAMIC	C
	C178	QCS21HJ-561	560PF 50V CERAMIC	D
	C178	QCS21HJ-561	560PF 50V CERAMIC	E
	C178	QCS21HJ-821	820PF 50V CERAMIC	F
	C178	QCS21HJ-561	560PF 50V CERAMIC	G
	C179	QETB1HM-225	2.2MF 50V ELECTRO	
	C180	QETB1HM-225	2.2MF 50V ELECTRO	
	C181	QETB1EM-106	10MF 25V ELECTRO	
	C182	QETB1HM-225	2.2MF 50V ELECTRO	
	C183	QETB1HM-105	1MF 50V ELECTRO	
	C184	QETB1HM-105	1MF 50V ELECTRO	
	C185	QETB1HM-225	2.2MF 50V ELECTRO	
	C186	QETB1HM-474	0.47MF 50V ELECTRO	
	C191	QETB1HM-475	4.7MF 50V ELECTRO	
	C192	QCC21EM-473	0.047MF 25V CERAMIC	
	C193	QCS21HJ-180	18PF 50V CERAMIC	
	C194	QCS21HJ-180	18PF 50V CERAMIC	
	C195	QENB1HM-474	0.47MF 50V NON POLE	
	C196	QCY21HK-102	1000PF 50V CERAMIC	
	C197	QCF21HP-223	0.022MF 50V CERAMIC	
	C198	QCF21HP-103	0.01MF 50V CERAMIC	
	C199	QETB1HM-475	4.7MF 50V ELECTRO	
	C206	QETB1HM-476	47MF 50V ELECTRO	E
	C206	QETB1HM-476	47MF 50V ELECTRO	G

Δ : SAFETY PARTS

Capacitors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C207	QCF21HP-223	0.022MF 50V CERAMIC	
	C222	QETB1CM-477	470MF 16V ELECTRO	
	C229	QETB1CM-227	220MF 16V ELECTRO	
	C241	QCF21HP-223	0.022MF 50V CERAMIC	

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R108	QRD167J-103	10K 1/6W CARBON	
	R109	QRZ0077-680	68 1/4W FUSIBLE	
	R118	QRD167J-332	3.3K 1/6W CARBON	
	R119	QRD161J-221	220 1/6W CARBON	
	R121	QRD167J-391	390 1/6W CARBON	
	R122	QRD167J-272	2.7K 1/6W CARBON	
	R123	QRD167J-102	1K 1/6W CARBON	
	R124	QRD167J-681	680 1/6W CARBON	
	R125	QRD167J-332	3.3K 1/6W CARBON	
	R126	QRD161J-221	220 1/6W CARBON	
	R131	QRD167J-331	330 1/6W CARBON	
	R132	QRD167J-103	10K 1/6W CARBON	
	R133	QRD167J-473	47K 1/6W CARBON	
	R134	QRD167J-103	10K 1/6W CARBON	D
	R134	QRD167J-103	10K 1/6W CARBON	E
	R134	QRD167J-103	10K 1/6W CARBON	F
	R134	QRD167J-103	10K 1/6W CARBON	G
	R135	QRD167J-470	47 1/6W CARBON	
	R136	QRD167J-103	10K 1/6W CARBON	
	R141	QRD167J-472	4.7K 1/6W CARBON	D
	R141	QRD167J-472	4.7K 1/6W CARBON	E
	R141	QRD167J-472	4.7K 1/6W CARBON	F
	R141	QRD167J-472	4.7K 1/6W CARBON	G
	R142	QRD167J-331	330 1/6W CARBON	D
	R142	QRD167J-331	330 1/6W CARBON	E
	R142	QRD167J-331	330 1/6W CARBON	F
	R142	QRD167J-331	330 1/6W CARBON	G
	R143	QRD167J-103	10K 1/6W CARBON	D
	R143	QRD167J-103	10K 1/6W CARBON	E
	R143	QRD167J-103	10K 1/6W CARBON	F
	R143	QRD167J-103	10K 1/6W CARBON	G
	R144	QRD167J-473	47K 1/6W CARBON	D
	R144	QRD167J-473	47K 1/6W CARBON	E
	R144	QRD167J-473	47K 1/6W CARBON	F
	R144	QRD167J-473	47K 1/6W CARBON	G
	R145	QRD167J-103	10K 1/6W CARBON	D
	R145	QRD167J-103	10K 1/6W CARBON	E
	R145	QRD167J-103	10K 1/6W CARBON	F
	R145	QRD167J-103	10K 1/6W CARBON	G
	R146	QRD167J-560	56 1/6W CARBON	
	R147	QRD167J-103	10K 1/6W CARBON	
	R148	QRD167J-103	10K 1/6W CARBON	
	R149	QRD167J-223	22K 1/6W CARBON	C
	R149	QRD167J-223	22K 1/6W CARBON	D
	R149	QRD167J-273	27K 1/6W CARBON	E
	R149	QRD167J-223	22K 1/6W CARBON	F
	R149	QRD167J-273	27K 1/6W CARBON	G
	R150	QRD167J-103	10K 1/6W CARBON	
	R151	QRD167J-222	2.2K 1/6W CARBON	
	R153	QRD167J-103	10K 1/6W CARBON	
	R154	QRD167J-103	10K 1/6W CARBON	
	R155	QRD167J-562	5.6K 1/6W CARBON	
	R156	QRD167J-822	8.2K 1/6W CARBON	
	R157	QRD167J-103	10K 1/6W CARBON	
	R158	QRD167J-273	27K 1/6W CARBON	
	R159	QRD167J-561	560 1/6W CARBON	
	R160	QRD167J-103	10K 1/6W CARBON	C
	R160	QRD167J-103	10K 1/6W CARBON	D
	R160	QRD167J-103	10K 1/6W CARBON	E
	R160	QRD167J-102	1K 1/6W CARBON	F
	R160	QRD167J-103	10K 1/6W CARBON	G
	R161	QRD167J-104	100K 1/6W CARBON	C
	R161	QRD167J-104	100K 1/6W CARBON	D
	R161	QRD167J-104	100K 1/6W CARBON	E
	R161	QRD167J-683	68K 1/6W CARBON	F
	R161	QRD167J-104	100K 1/6W CARBON	G
	R162	QRD167J-104	100K 1/6W CARBON	C
	R162	QRD167J-104	100K 1/6W CARBON	D
	R162	QRD167J-104	100K 1/6W CARBON	E
	R162	QRD167J-683	68K 1/6W CARBON	F
	R162	QRD167J-104	100K 1/6W CARBON	G
	R163	QRD167J-332	3.3K 1/6W CARBON	
	R164	QRD167J-332	3.3K 1/6W CARBON	
	R165	QRD167J-274	270K 1/6W CARBON	
	R166	QRD167J-274	270K 1/6W CARBON	
	R167	QRD167J-473	47K 1/6W CARBON	
	R168	QRD167J-103	10K 1/6W CARBON	
	R169	QRD167J-103	10K 1/6W CARBON	
	R171	QRD167J-682	6.8K 1/6W CARBON	
	R172	QRD167J-682	6.8K 1/6W CARBON	
	R180	QRD167J-103	10K 1/6W CARBON	
	R181	QRD167J-222	2.2K 1/6W CARBON	
	R182	QRD167J-181	180 1/6W CARBON	
	R190	QRD167J-103	10K 1/6W CARBON	
	R191	QRD167J-562	5.6K 1/6W CARBON	

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R194	QRD167J-103	10K 1/6W CARBON	
	R195	QRD167J-473	47K 1/6W CARBON	
	R196	QRD167J-103	10K 1/6W CARBON	C
	R196	QRD167J-222	2.2K 1/6W CARBON	D
	R196	QRD167J-222	2.2K 1/6W CARBON	E
	R196	QRD167J-222	2.2K 1/6W CARBON	F
	R196	QRD167J-222	2.2K 1/6W CARBON	G
	R197	QRD167J-222	2.2K 1/6W CARBON	
	R198	QRD167J-332	3.3K 1/6W CARBON	C
	R198	QRD167J-822	8.2K 1/6W CARBON	D
	R198	QRD167J-822	8.2K 1/6W CARBON	E
	R198	QRD167J-822	8.2K 1/6W CARBON	F
	R198	QRD167J-822	8.2K 1/6W CARBON	G
	R199	QRD167J-472	4.7K 1/6W CARBON	
	R228	QRD167J-222	2.2K 1/6W CARBON	

Δ SAFETY PARTS

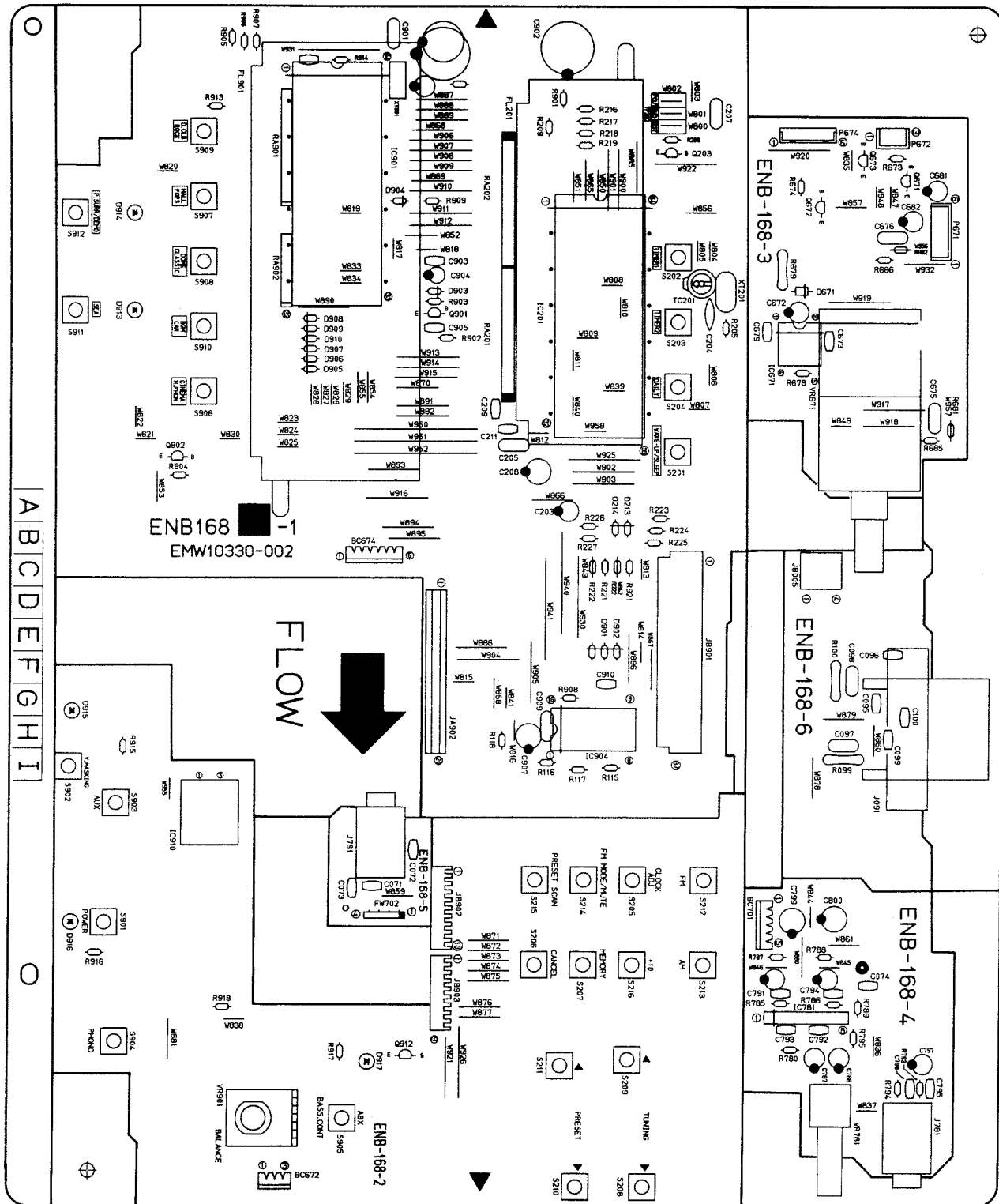
Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	L101	EQL4004-1R0	INDUCTOR	
	L106	EQL3001-102K	INDUCTOR	
	L110	EQL4004-100	INDUCTOR	E
	L110	EQL4004-100	INDUCTOR	G
	L120	EQL4004-1R0	INDUCTOR	
	T101	EQR1111-014	AM RF COIL	
	T102	EQR1111-005	AM RF COIL	D
	T102	EQR1111-005	AM RF COIL	E
	T102	EQR1111-005	AM RF COIL	F
	T102	EQR1111-005	AM RF COIL	G
	T103	EQR1207-017	MW OSC COIL	
	T104	EQR1307-010	LW OSC COIL	D
	T104	EQR1307-010	LW OSC COIL	E
	T104	EQR1307-010	LW OSC COIL	F
	T104	EQR1307-010	LW OSC COIL	G
	T105	EQT2140-017	I.F. TRANSFORMER	
	T107	ECB1560-010	CERAMIC FILTER	
	AT101	EMB01YV-305K	ANTENNA TERMINAL	
	CF101	ECB2123-006R	CERAMIC FILTER	C
	CF101	ECB2118-007R	CERAMIC FILTER	D
	CF101	ECB2118-007R	CERAMIC FILTER	E
	CF101	ECB2118-007R	CERAMIC FILTER	F
	CF101	ECB2118-007R	CERAMIC FILTER	G
	CF102	ECB2123-006R	CERAMIC FILTER	C
	CF102	ECB2118-007R	CERAMIC FILTER	D
	CF102	ECB2118-007R	CERAMIC FILTER	E
	CF102	ECB2118-007R	CERAMIC FILTER	F
	CF102	ECB2118-007R	CERAMIC FILTER	G
	EP101	E70225-001	EARTH PLATE	
	FE101	EAF2203-001	FRONT END	C
	FE101	EAF2203-001	FRONT END	D
	FE101	EAF2203-003	FRONT END	E
	FE101	EAF2203-001	FRONT END	F
	FE101	EAF2203-003	FRONT END	G
	JA101	EMV7140-L15R	CONNECTOR(15PIN) TO MAIN PCB	
	LP101	EQF0101-002	LOW PASS FILTER	
	LP102	EQF0102-001	LOW PASS FILTER	E
	LP102	EQF0102-001	LOW PASS FILTER	G
	TC105	ENZ1003-006	TRIMMER	
	TC106	ENZ1003-006	TRIMMER	D
	TC106	ENZ1003-006	TRIMMER	E
	TC106	ENZ1003-006	TRIMMER	F
	TC106	ENZ1003-006	TRIMMER	G
	XT102	ECX0007-200KCTJ	RESONATOR	
	XT103	ECX0000-456KR	RESONATOR	

Δ SAFETY PARTS

■ ENB-168 □ Display, Mic AMP. & Volume PC Board Ass'y

Note : ENB-168 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENB-168 A	Scandinavia Continental Europe
ENB-168 B	Australia
ENB-168 C	the U.K.
ENB-168 D	Germany
ENB-168 E	Italy

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q203	DTA114YS	SILICON ROHM	
Q671	2SD2144S(VW)	SILICON ROHM	
Q672	2SD2144S(VW)	SILICON ROHM	
Q673	DTA144ES	SILICON ROHM	
Q901	DTC114YS	SILICON ROHM	
Q902	DTC144ES	SILICON ROHM	
Q912	DTC114YS	SILICON ROHM	

△ : SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC201	HD614089SD51	I.C. HITACHI	
IC671	LB1639-CV	I.C. SANYO	
IC781	XRA15218N	I.C. EXAR JAPAN	
IC901	MN171202JHG	I.C. MATSUSHITA	
IC904	TC74HC595AP	I.C. TOSHIBA	
IC910	SPS-420-1	I.C. SANYO	

△ : SAFETY PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D213	1SS119	SILICON HITACHI	B
D214	1SS119	SILICON HITACHI	E
D671	1SR139-200	SILICON ROHM	
D901	1SS119	SILICON HITACHI	
D902	1SS119	SILICON HITACHI	
D903	1SS119	SILICON HITACHI	
D904	1SS119	SILICON HITACHI	
D905	1SS119	SILICON HITACHI	
D906	1SS119	SILICON HITACHI	
D907	1SS119	SILICON HITACHI	
D908	1SS119	SILICON HITACHI	
D909	1SS119	SILICON HITACHI	
D910	1SS119	SILICON HITACHI	
D913	SLR-342VC3F	L.E.D. ROHM	
D914	SLR-342VC3F	L.E.D. ROHM	
D915	SLR-342VC3F	L.E.D. ROHM	
D916	SLR-342VC3F	L.E.D. ROHM	A
D916	SLR-342VC3F	L.E.D. ROHM	B
D916	SLA-580LT3F	L.E.D. ROHM	C
D916	SLR-342VC3F	L.E.D. ROHM	D
D916	SLR-342VC3F	L.E.D. ROHM	E
D917	SLR-342VC3F	L.E.D. ROHM	

△ : SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C071	QCGB1HK-102	1000PF 50V CERAMIC	
C072	QCGB1HK-102	1000PF 50V CERAMIC	
C074	QCVB1CM-103	0.01MF 16V CERAMIC	
C095	QCHB1EZ-223	0.022MF 25V CERAMIC	D
C095	QCHB1EZ-223	0.022MF 25V CERAMIC	E
C096	QCHB1EZ-223	0.022MF 25V CERAMIC	D
C096	QCHB1EZ-223	0.022MF 25V CERAMIC	E
C097	QFLB1HJ-103	0.01MF 50V MYLAR	D
C097	QFLB1HJ-103	0.01MF 50V MYLAR	E
C098	QFLB1HJ-103	0.01MF 50V MYLAR	D
C098	QFLB1HJ-103	0.01MF 50V MYLAR	E
C099	QCBB1HK-331	330PF 50V CERAMIC	D
C099	QCBB1HK-331	330PF 50V CERAMIC	E
C100	QCBB1HK-331	330PF 50V CERAMIC	D
C100	QCBB1HK-331	330PF 50V CERAMIC	E

△ : SAFETY PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C203	QETB1HM-474	0.47MF 50V ELECTRO	
C204	QCT26CH-120	12PF 50V CERAMIC	
C205	QCZ0202-155	1.5MF 25V CERAMIC	
C207	QCZ0202-155	1.5MF 25V CERAMIC	
C208	QETB1AM-227	220MF 10V ELECTRO	
C209	QCVB1CM-103	0.01MF 16V CERAMIC	
C211	QCVB1CM-103	0.01MF 16V CERAMIC	
C672	QETB1AM-476	47MF 10V ELECTRO	
C673	QCVB1CM-103	0.01MF 16V CERAMIC	
C675	QETB1HM-474	0.47MF 50V ELECTRO	
C676	QETB1HM-474	0.47MF 50V ELECTRO	
C679	QCGB1HK-102	1000PF 50V CERAMIC	
C681	EEZ5009-106	10MF ELECTRO	
C682	EEZ5009-106	10MF ELECTRO	
C787	QEK51EM-106	10MF 25V ELECTRO	
C788	QEK51EM-106	10MF 25V ELECTRO	
C791	QCBB1HK-101	100PF 50V CERAMIC	
C792	QCBB1HK-101	100PF 50V CERAMIC	
C793	QCBB1HK-101	100PF 50V CERAMIC	
C794	QCBB1HK-101	100PF 50V CERAMIC	
C795	QCGB1HK-102	1000PF 50V CERAMIC	
C797	QEK51EM-106	10MF 25V ELECTRO	
C798	QCGB1HK-102	1000PF 50V CERAMIC	
C799	QER51CM-476	47MF 16V ELECTRO	
C800	QER51CM-476	47MF 16V ELECTRO	
C901	QCZ0205-155	1.5MF 25V CERAMIC	
C902	QEA40HZ-10AB	ELECTRO	
C903	QCVB1CM-103	0.01MF 16V CERAMIC	
C904	QETB1HM-225	2.2MF 50V ELECTRO	
C905	QCVB1CM-103	0.01MF 16V CERAMIC	
C907	QER50JM-107	100MF 6.3V ELECTRO	
C909	QCZ0202-155	1.5MF 25V CERAMIC	
C910	QCBB1HK-561	560PF 50V CERAMIC	

△ : SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R099	QRD14CJ-100S	10 1/4W UNF. CARBON	D
R099	QRD14CJ-100S	10 1/4W UNF. CARBON	E
R100	QRD14CJ-100S	10 1/4W UNF. CARBON	D
R100	QRD14CJ-100S	10 1/4W UNF. CARBON	E
R115	QRD167J-331	330 1/6W CARBON	
R116	QRD167J-331	330 1/6W CARBON	
R117	QRD167J-331	330 1/6W CARBON	
R118	QRD167J-331	330 1/6W CARBON	
R205	QRD167J-473	47K 1/6W CARBON	
R208	QRD167J-473	47K 1/6W CARBON	
R209	QRD167J-104	100K 1/6W CARBON	
R226	QRD167J-473	47K 1/6W CARBON	
R673	QRD167J-103	10K 1/6W CARBON	
R674	QRD167J-103	10K 1/6W CARBON	
R678	QRD161J-221	220 1/6W CARBON	
R679	QRD14CJ-4R7S	4.7 1/4W UNF. CARBON	
R681	QRD167J-272	2.7K 1/6W CARBON	
R682	QRD167J-272	2.7K 1/6W CARBON	
R685	QRD167J-123	12K 1/6W CARBON	
R686	QRD167J-123	12K 1/6W CARBON	
R780	QRD167J-471	470 1/6W CARBON	
R785	QRD167J-104	100K 1/6W CARBON	
R786	QRD167J-104	100K 1/6W CARBON	
R787	QRD167J-202	2K 1/6W CARBON	
R788	QRD167J-124	120K 1/6W CARBON	
R789	QRD167J-473	47K 1/6W CARBON	
R793	QRD167J-102	1K 1/6W CARBON	
R794	QRD167J-103	10K 1/6W CARBON	
R795	QRD167J-331	330 1/6W CARBON	
R901	QRD167J-470	47 1/6W CARBON	
R902	QRD167J-103	10K 1/6W CARBON	
R903	QRD167J-104	100K 1/6W CARBON	
R904	QRD167J-104	100K 1/6W CARBON	
R905	QRD167J-473	47K 1/6W CARBON	
R906	QRD167J-473	47K 1/6W CARBON	
R907	QRD167J-473	47K 1/6W CARBON	
R908	QRD167J-473	47K 1/6W CARBON	
R909	QRD167J-473	47K 1/6W CARBON	
R913	QRD167J-241	240 1/6W CARBON	
R914	QRD167J-241	240 1/6W CARBON	
R915	QRD167J-241	240 1/6W CARBON	
R916	QRD167J-241	240 1/6W CARBON	
R917	QRD167J-241	240 1/6W CARBON	
R918	QRD167J-473	47K 1/6W CARBON	
VR671	QVDB94B-E15C	100K VARIABLE	
VR781	QVAB80B-E54D	50K VARIABLE	
VR901	QVJB84W-E15C	100K VARIABLE	

△ : SAFETY PARTS

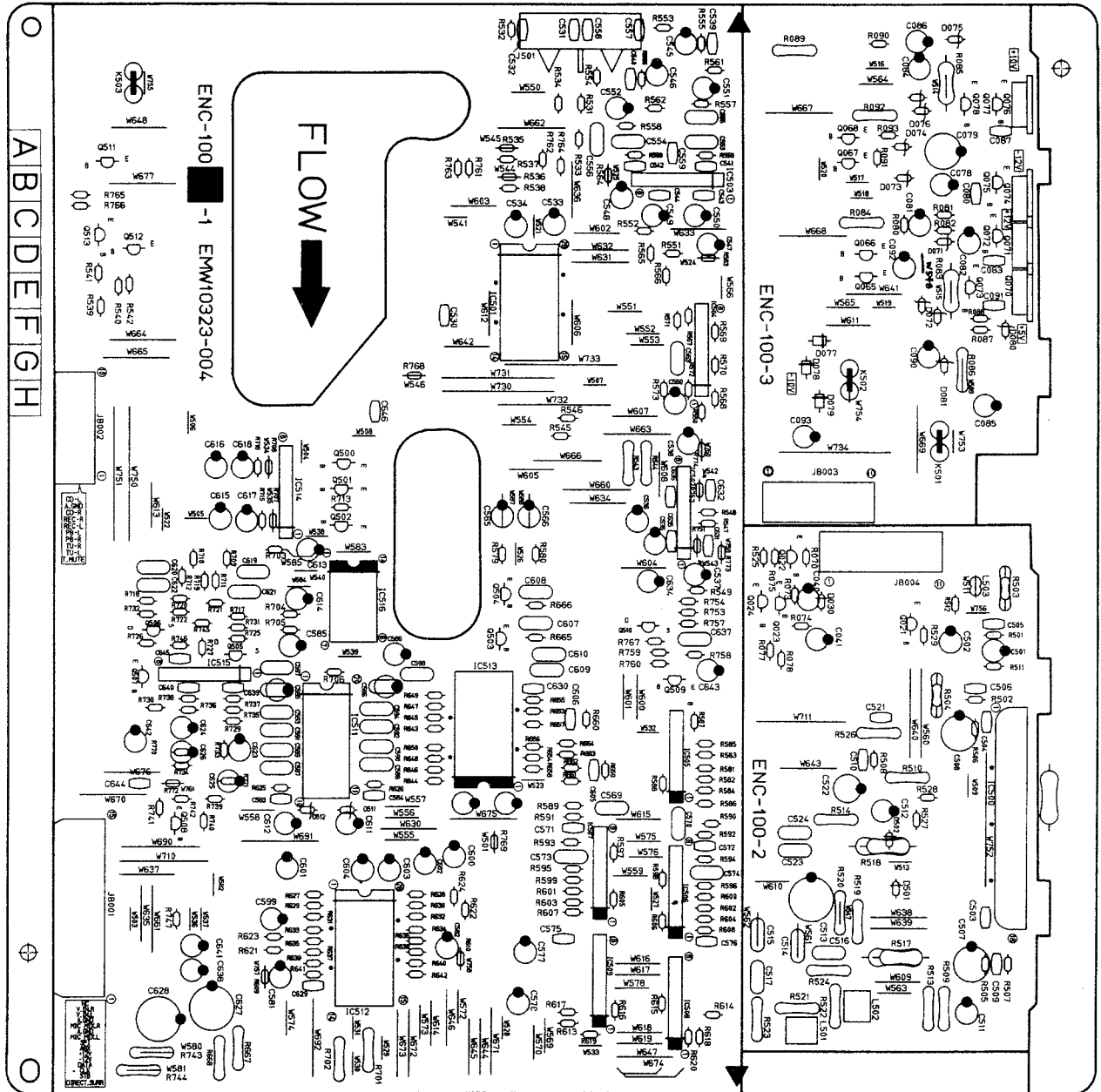
Others

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		EWT011-158	TERMINAL WIRE	
	J091	EMB90TV-404A	SPEAKER TERMINAL	A
	J091	EMB90TV-404A	SPEAKER TERMINAL	B
	J091	EMB90TV-404A	SPEAKER TERMINAL	C
	J091	EMB90TV-403A	SPEAKER TERMINAL	D
	J091	EMB90TV-403A	SPEAKER TERMINAL	E
	J781	QMS3L10-ED0H	MINI JACK(MIC TERMINAL)	
	J791	QMS3L10-ED0H	MINI JACK(MIC TERMINAL)	
	P671	EMV5109-006A	PLUG ASSY(6PIN)	
	P672	EMV5109-003A	PLUG ASSY(3PIN)	
	P674	EMV5142-906	PLUG ASSY(6PIN)	
	S201	ESP0001-023M	TACT SWITCH(WAKE-UP/SLEEP)	
	S202	ESP0001-023M	TACT SWITCH(TIMER 1)	
	S203	ESP0001-023M	TACT SWITCH(TIMER 2)	
	S204	ESP0001-023M	TACT SWITCH(DAILY)	
	S205	ESP0001-023M	TACT SWITCH(CLOCK ADJUST)	
	S206	ESP0001-023M	TACT SWITCH(CANCEL)	
	S207	ESP0001-023M	TACT SWITCH(MEMORY)	
	S208	ESP0001-023M	TACT SWITCH(TUNING UP)	
	S209	ESP0001-023M	TACT SWITCH(TUNING DOWN)	
	S210	ESP0001-023M	TACT SWITCH(PRESET UP)	
	S211	ESP0001-023M	TACT SWITCH(PRESET DOWN)	
	S212	ESP0001-023M	TACT SWITCH(FM)	
	S213	ESP0001-023M	TACT SWITCH(AM)	
	S214	ESP0001-023M	TACT SWITCH(FM MODE/MUTE)	
	S215	ESP0001-023M	TACT SWITCH(PRESET SCAN)	
	S216	ESP0001-023M	TACT SWITCH(+10)	
	S901	ESP0001-023M	TACT SWITCH(POWER)	
	S902	ESP0001-023M	TACT SWITCH(VOCAL MASKING)	
	S903	ESP0001-023M	TACT SWITCH(AUX)	
	S904	ESP0001-023M	TACT SWITCH(PHONO)	
	S905	ESP0001-023M	TACT SWITCH(BASS CONTROL)	
	S906	ESP0001-023M	TACT SWITCH(CINEMA H.PHONE)	
	S907	ESP0001-023M	TACT SWITCH(HALL POPS)	
	S908	ESP0001-023M	TACT SWITCH(DOME CLASSIC)	
	S909	ESP0001-023M	TACT SWITCH(DANCE CLUB ROCK)	
	S910	ESP0001-023M	TACT SWITCH(BGM CAR)	
	S911	ESP0001-023M	TACT SWITCH(SEA)	
	S912	ESP0001-023M	TACT SWITCH(P.SURROUND/DEMO)	
	BC672	EWS293-0116	SOCKET WIRE(3PIN)	
	BC674	EWS326-A913	SOCKET WIRE(6PIN)	
	BC701	EWS325-A920	SOCKET WIRE(5PIN)	
	BK201	E308192-001	FL HOLDER	
	BK901	E308419-001	FL HOLDER	
	FL201	ELU0001-150	FL TUBE	
	FL901	ELU0001-149	FL TUBE	
	FS201	E306805-014	FELT SPACER	
	FS901	E306805-014	FELT SPACER	
	FW702	EWR348-16LST	FLAT WIRE(4PIN)	
	JA902	EMV5123-L070	PLUG ASSY(20PIN)	
	JB005	EMV7125-004R	CONNECTOR(4PIN)	
	JB901	EMV7123-037R	CONNECTOR(37PIN)	
	JB902	EMV7124-010	CONNECTOR(10PIN)	
	JB903	EMV7124-009	CONNECTOR(9PIN)	
	TC201	ENZ1003-015	TRIMMER	
	XT201	ECX4194-304CF	RESONATOR	
	XT901	ECX0060-000EM	RESONATOR	

Δ : SAFETY PARTS

■ ENC-100 □ Selector, Amplifier & Regulator PC Board Ass'y

Note : ENC-100 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENC-100 ☒ G	Australia, the U.K. Scandinavia Continental Europe
ENC-100 ☒ H	Germany, Italy

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q021	DTC144ES	SILICON ROHM	
Q022	2SC1740S(R,S)	SILICON ROHM	
Q023	2SC1740S(R,S)	SILICON ROHM	
Q024	2SA733A(P,Q)	SILICON ROHM	
Q065	DTC144ES	SILICON ROHM	

△ SAFETY PARTS

Transistors

ITEM	PART NUMBER	DESCRIPTION	AREA
Q066	DTA114YS	SILICON ROHM	
Q067	DTA144ES	SILICON ROHM	
Q068	DTC114YS	SILICON ROHM	
Q070	2SD1944(J,K)	SILICON ROHM	
Q071	2SD2061(E,F)	SILICON ROHM	
Q072	2SC1740S(R,S)	SILICON ROHM	
Q074	2SB1187(E,F)	SILICON ROHM	
Q075	2SA564A(Q,R)	SILICON MATSUSHITA	
Q076	2SD2061(E,F)	SILICON ROHM	
Q077	2SC1740S(R,S)	SILICON ROHM	
Q500	DTC114ES	SILICON ROHM	
Q501	DTA114ES	SILICON ROHM	
Q502	DTC114ES	SILICON ROHM	
Q503	2SC1740S(R,S)	SILICON ROHM	
Q504	2SC1740S(R,S)	SILICON ROHM	
Q505	2SK301(P,Q)	F.E.T. MATSUSHITA	
Q506	2SK301(P,Q)	F.E.T. MATSUSHITA	
Q507	DTA144ES	SILICON ROHM	
Q508	2SC1740S(R,S)	SILICON ROHM	

△ SAFETY PARTS

I.C.s

ITEM	PART NUMBER	DESCRIPTION	AREA
IC500	STK4141MK5	I.C. SANYO	
IC501	TC9162N	I.C. TOSHIBA	
IC502	VC4580L	I.C. DAINICHI	
IC503	VC4580LD	I.C. DAINICHI	
IC504	XRA15218N	I.C. EXAR JAPAN	
IC505	XRA15218N	I.C. EXAR JAPAN	
IC506	XRA15218N	I.C. EXAR JAPAN	
IC507	XRA15218N	I.C. EXAR JAPAN	
IC508	XRA15218N	I.C. EXAR JAPAN	
IC509	XRA15218N	I.C. EXAR JAPAN	
IC511	M5243P12	I.C. MITSUBISHI	
IC512	TC9163N	I.C. TOSHIBA	
IC513	TC9164N	I.C. TOSHIBA	
IC514	XRA15218N	I.C. EXAR JAPAN	
IC515	VC4580L	I.C. DAINICHI	
IC516	LC4966	I.C. SANYO	

△ DISAPPEARS PARTS

Diodes

ITEM	PART NUMBER	DESCRIPTION	AREA
D030	1SS119	SILICON HITACHI	
D071	RD13JSB3	ZENER NEC	
D072	MTZ13JC	ZENER ROHM	
D073	MTZ13JC	ZENER ROHM	
D074	RD13JSB3	ZENER NEC	
D075	MTZ11JC	ZENER ROHM	
D076	MTZ12JC	ZENER ROHM	
D077	1SR139-200	SILICON ROHM	
D078	1SR139-200	SILICON ROHM	
D079	1SR139-200	SILICON ROHM	
D080	MTZ6.8JC	ZENER ROHM	
D081	MTZ6.2JC	ZENER ROHM	
D501	1SS119	SILICON HITACHI	
D502	1SS119	SILICON HITACHI	
D511	MTZ6.2JC	ZENER ROHM	
D512	MTZ6.2JC	ZENER ROHM	

△ DISAPPEARS PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C040	QETB1CM-226	22MF 16V ELECTRO	
C041	QETB1AM-476	47MF 10V ELECTRO	
C078	QETB1EM-226	22MF 25V ELECTRO	
C079	QETB1EM-227	220MF 25V ELECTRO	
C080	QCVB1CM-103	0.01MF 16V CERAMIC	
C081	QETB1EM-226	22MF 25V ELECTRO	
C082	QETB1EM-226	22MF 25V ELECTRO	
C083	QCVB1CM-103	0.01MF 16V CERAMIC	
C084	QETB1EM-226	22MF 25V ELECTRO	
C085	EEZ5009-106	10MF 50V ELECTRO	
C086	QETB1EM-226	22MF 25V ELECTRO	
C087	QCVB1CM-103	0.01MF 16V CERAMIC	
C090	QETB1EM-226	22MF 25V ELECTRO	
C091	QCVB1CM-103	0.01MF 16V CERAMIC	
C092	QETB1EM-226	22MF 25V ELECTRO	
C093	QETB1EM-226	22MF 25V ELECTRO	
C501	EEZ2505-226	22MF 50V ELECTRO	
C502	EEZ2505-226	22MF 50V ELECTRO	
C503	QCBB1HK-561	560PF 50V CERAMIC	
C504	QCBB1HK-561	560PF 50V CERAMIC	
C505	QCBB1HK-101	100PF 50V CERAMIC	
C506	QCBB1HK-101	100PF 50V CERAMIC	
C507	EET2501-107E	100MF 50V ELECTRO	
C508	EET2501-107E	100MF 50V ELECTRO	
C509	QCT30CH-100	10PF 50V CERAMIC	
C510	QCT30CH-100	10PF 50V CERAMIC	
C511	QETB1HM-226	22MF 50V ELECTRO	
C512	QETB1HM-226	22MF 50V ELECTRO	
C513	QETB1HM-107	100MF 50V ELECTRO	
C514	QFVB1HJ-104	0.1MF 50V T.FILM	
C515	QFVB1HJ-104	0.1MF 50V T.FILM	
C516	QFVB1HJ-104	0.1MF 50V T.FILM	
C517	QFVB1HJ-104	0.1MF 50V T.FILM	
C521	QCBB1HK-681	680PF 50V CERAMIC	H
C522	QETB1HM-106	10MF 50V ELECTRO	
C523	QFLB1HJ-473	0.047MF 50V MYLAR	
C524	QFLB1HJ-473	0.047MF 50V MYLAR	
C531	QCBB1HK-331	330PF 50V CERAMIC	H
C532	QCBB1HK-331	330PF 50V CERAMIC	H
C533	EEZ2505-476	47MF 50V ELECTRO	
C534	EEZ2505-476	47MF 50V ELECTRO	
C535	QETB1HM-475	4.7MF 50V ELECTRO	
C536	QETB1HM-475	4.7MF 50V ELECTRO	
C537	QETB1HM-475	4.7MF 50V ELECTRO	
C538	QETB1HM-475	4.7MF 50V ELECTRO	

△ DISAPPEARS PARTS

Capacitors

ITEM	PART NUMBER	DESCRIPTION	AREA
C539	QCBB1HK-101	100PF 50V CERAMIC	
C540	QCBB1HK-101	100PF 50V CERAMIC	
C543	QCBB1HK-101	100PF 50V CERAMIC	
C544	QCBB1HK-101	100PF 50V CERAMIC	
C545	QETB1HM-475	4.7MF 50V ELECTRO	
C546	QETB1HM-475	4.7MF 50V ELECTRO	
C547	QETB1HM-475	4.7MF 50V ELECTRO	
C548	QETB1HM-475	4.7MF 50V ELECTRO	
C549	QETB1EM-476	47MF 25V ELECTRO	
C550	QETB1EM-476	47MF 25V ELECTRO	
C551	QETB1EM-476	47MF 25V ELECTRO	
C552	QETB1EM-476	47MF 25V ELECTRO	
C553	QFLB1HJ-182	1800PF 50V MYLAR	
C554	QFLB1HJ-182	1800PF 50V MYLAR	
C555	QFLB1HJ-682	6800PF 50V MYLAR	
C556	QFLB1HJ-682	6800PF 50V MYLAR	
C557	QCBB1HK-561	560PF 50V CERAMIC	H
C558	QCBB1HK-561	560PF 50V CERAMIC	H
C559	QCHB1EZ-223	0.022MF 25V CERAMIC	H
C560	QETB1HM-475	4.7MF 50V ELECTRO	
C563	QFLB1HJ-683	0.068MF 50V MYLAR	
C565	QETB1EM-106	10MF 25V ELECTRO	
C566	QETB1EM-106	10MF 25V ELECTRO	
C569	QFVB1HJ-104	0.1MF 50V T.FILM	
C570	QFVB1HJ-104	0.1MF 50V T.FILM	
C571	QCXB1CM-682	6800PF 16V CERAMIC	
C572	QCXB1CM-682	6800PF 16V CERAMIC	
C573	QFLB1HJ-222	2200PF 50V MYLAR	
C574	QFLB1HJ-222	2200PF 50V MYLAR	
C575	QCGB1HK-102	1000PF 50V CERAMIC	
C576	QCGB1HK-102	1000PF 50V CERAMIC	
C577	QETB1EM-106	10MF 25V ELECTRO	
C578	QETB1EM-106	10MF 25V ELECTRO	
C581	QETB1EM-106	10MF 25V ELECTRO	
C582	QETB1EM-106	10MF 25V ELECTRO	
C583	QCGB1HK-821	820PF 50V CERAMIC	
C584	QCGB1HK-821	820PF 50V CERAMIC	
C585	QETB1EM-106	10MF 25V ELECTRO	
C586	QETB1EM-106	10MF 25V ELECTRO	
C587	QFLB1HJ-822	8200PF 50V MYLAR	
C588	QFLB1HJ-822	8200PF 50V MYLAR	
C589	QFLB1HJ-152	1500PF 50V MYLAR	
C590	QFLB1HJ-152	1500PF 50V MYLAR	
C591	QFLB1HJ-333	0.033MF 50V MYLAR	
C592	QFLB1HJ-333	0.033MF 50V MYLAR	
C593	QFLB1HJ-223	0.022MF 50V MYLAR	
C594	QFLB1HJ-223	0.022MF 50V MYLAR	
C595	QFVB1HJ-394	0.39MF 50V T.FILM	
C596	QFVB1HJ-394	0.39MF 50V T.FILM	
C597	QFVB1HJ-124	0.12MF 50V T.FILM	
C598	QFVB1HJ-124	0.12MF 50V T.FILM	
C599	QETB1EM-476	47MF 25V ELECTRO	
C600	QETB1EM-476	47MF 25V ELECTRO	
C601	QETB1EM-476	47MF 25V ELECTRO	
C602	QETB1EM-476	47MF 25V ELECTRO	
C605	QCS21HJ-680	68PF 50V CERAMIC	
C606	QCS21HJ-680	68PF 50V CERAMIC	
C607	QFLB1HJ-821	820PF 50V MYLAR	
C608	QFLB1HJ-821	820PF 50V MYLAR	
C609	QFLB1HJ-122	1200PF 50V MYLAR	
C610	QFLB1HJ-122	1200PF 50V MYLAR	
C611	EEZ2505-476	47MF 25V ELECTRO	
C612	EEZ2505-476	47MF 25V ELECTRO	
C613	QETB1EM-106	10MF 25V ELECTRO	
C614	QETB1EM-106	10MF 25V ELECTRO	
C615	EEZ5009-106	10MF 50V ELECTRO	
C616	EEZ5009-106	10MF 50V ELECTRO	
C617	QETB1HM-106	10MF 50V ELECTRO	
C618	QETB1HM-106	10MF 50V ELECTRO	
C619	QFVB1HJ-393	0.039MF 50V T.FILM	
C620	QFVB1HJ-393	0.039MF 50V T.FILM	
C621	QFVB1HJ-104	0.1MF 50V T.FILM	
C622	QFVB1HJ-104	0.1MF 50V T.FILM	
C623	QERS1HM-225G	2.2MF 50V ELECTRO	
C624	QERS1HM-225G	2.2MF 50V ELECTRO	
C638	QEK51HM-105G	1MF 50V ELECTRO	
C639	QCSB1HJ-220	22PF 50V CERAMIC	
C640	QCSB1HJ-220	22PF 50V CERAMIC	
C641	QETB1EM-106	10MF 25V ELECTRO	
C642	QETB1EM-106	10MF 25V ELECTRO	
C644	QCHB1EZ-223	0.022MF 25V CERAMIC	H
C645	QCHB1EZ-223	0.022MF 25V CERAMIC	H
C646	QCHB1EZ-223	0.022MF 25V CERAMIC	H

△ DISAPPEARS PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R070	QRD167J-333	33K 1/6W CARBON	
	R073	QRD167J-682	6.8K 1/6W CARBON	
	R074	QRD167J-104	100K 1/6W CARBON	
	R075	QRD167J-104	100K 1/6W CARBON	
	R077	QRD167J-823	82K 1/6W CARBON	
	R078	QRD167J-104	100K 1/6W CARBON	
	R080	QRD167J-103	10K 1/6W CARBON	
	R081	QRD167J-152	1.5K 1/6W CARBON	
	R082	QRD167J-471	470 1/6W CARBON	
Δ	R084	QRD14CJ-1R0S	1 1/4W UNF. CARBON	
	R087	QRD167J-103	10K 1/6W CARBON	
	R088	QRD167J-103	10K 1/6W CARBON	
Δ	R089	QRD14CJ-1R0S	1 1/4W UNF. CARBON	
	R090	QRD167J-332	3.3K 1/6W CARBON	
	R091	QRD167J-103	10K 1/6W CARBON	
Δ	R092	QRD14CJ-2R7S	2.7 1/4W UNF. CARBON	
	R093	QRD167J-222	2.2K 1/6W CARBON	
	R501	QRD167J-563	56K 1/6W CARBON	
	R502	QRD167J-563	56K 1/6W CARBON	
Δ	R503	QRD14CJ-561S	560 1/4W UNF. CARBON	
Δ	R504	QRD14CJ-561S	560 1/4W UNF. CARBON	
	R505	QRD167J-471	470 1/6W CARBON	
	R506	QRD167J-471	470 1/6W CARBON	
	R507	QRD167J-563	56K 1/6W CARBON	
	R508	QRD167J-563	56K 1/6W CARBON	
Δ	R509	QRD14CJ-272S	2.7K 1/4W UNF. CARBON	
Δ	R510	QRD14CJ-272S	2.7K 1/4W UNF. CARBON	
	R511	QRD167J-102	1K 1/6W CARBON	
	R512	QRD167J-102	1K 1/6W CARBON	
Δ	R513	QRD14CJ-272S	2.7K 1/4W UNF. CARBON	
Δ	R514	QRD14CJ-272S	2.7K 1/4W UNF. CARBON	
Δ	R517	QRX012J-R22AM	0.22 1W M. FILM	
Δ	R518	QRX012J-R22AM	0.22 1W M. FILM	
Δ	R519	QRZ0077-101	100 1/4W FUSIBLE	
Δ	R520	QRZ0077-100	10 1/4W FUSIBLE	
Δ	R521	QRD14CJ-100S	10 1/4W UNF. CARBON	
Δ	R522	QRD14CJ-100S	10 1/4W UNF. CARBON	
Δ	R523	QRD14CJ-100S	10 1/4W UNF. CARBON	
Δ	R524	QRD14CJ-100S	10 1/4W UNF. CARBON	
Δ	R525	QRD167J-332	3.3K 1/6W CARBON	
Δ	R526	QRD14CJ-100S	10 1/4W UNF. CARBON	
	R527	QRD167J-272	2.7K 1/6W CARBON	
	R528	QRD167J-272	2.7K 1/6W CARBON	
	R529	QRD167J-103	10K 1/6W CARBON	
	R531	QRD167J-153	15K 1/6W CARBON	
	R532	QRD167J-153	15K 1/6W CARBON	
	R533	QRD167J-104	100K 1/6W CARBON	
	R534	QRD167J-104	100K 1/6W CARBON	
	R539	QRD167J-222	2.2K 1/6W CARBON	
	R540	QRD167J-222	2.2K 1/6W CARBON	
	R541	QRD167J-392	3.9K 1/6W CARBON	
	R542	QRD167J-392	3.9K 1/6W CARBON	
	R543	QRD167J-331	330 1/6W CARBON	
	R544	QRD167J-331	330 1/6W CARBON	
	R545	QRD167J-104	100K 1/6W CARBON	
	R546	QRD167J-104	100K 1/6W CARBON	
	R547	QRD167J-104	100K 1/6W CARBON	
	R548	QRD167J-104	100K 1/6W CARBON	
	R549	QRD167J-152	1.5K 1/6W CARBON	
	R550	QRD167J-152	1.5K 1/6W CARBON	
	R551	QRD167J-104	100K 1/6W CARBON	
	R552	QRD167J-104	100K 1/6W CARBON	
	R553	QRD167J-222	2.2K 1/6W CARBON	
	R554	QRD167J-222	2.2K 1/6W CARBON	
	R555	QRD167J-473	47K 1/6W CARBON	
	R556	QRD167J-473	47K 1/6W CARBON	
	R557	QRD167J-474	470K 1/6W CARBON	
	R558	QRD167J-474	470K 1/6W CARBON	
	R559	QRD167J-393	39K 1/6W CARBON	
	R560	QRD167J-393	39K 1/6W CARBON	
	R561	QRD167J-751	750 1/6W CARBON	
	R562	QRD167J-751	750 1/6W CARBON	
	R565	QRD167J-391	390 1/6W CARBON	
	R566	QRD167J-391	390 1/6W CARBON	
	R567	QRD167J-473	47K 1/6W CARBON	
	R568	QRD167J-473	47K 1/6W CARBON	
	R569	QRD167J-473	47K 1/6W CARBON	
	R570	QRD167J-473	47K 1/6W CARBON	
	R571	QRD167J-473	47K 1/6W CARBON	
	R572	QRD167J-473	47K 1/6W CARBON	
	R573	QRD167J-104	100K 1/6W CARBON	
	R579	QRD167J-104	100K 1/6W CARBON	
	R580	QRD167J-104	100K 1/6W CARBON	
	R581	QRD167J-392	3.9K 1/6W CARBON	
	R582	QRD167J-392	3.9K 1/6W CARBON	
	R583	QRD167J-103	10K 1/6W CARBON	
	R584	QRD167J-103	10K 1/6W CARBON	
	R585	QRD167J-103	10K 1/6W CARBON	
	R586	QRD167J-103	10K 1/6W CARBON	
	R587	QRD167J-103	10K 1/6W CARBON	
	R588	QRD167J-103	10K 1/6W CARBON	
	R589	QRD167J-103	10K 1/6W CARBON	
	R590	QRD167J-103	10K 1/6W CARBON	
	R591	QRD167J-103	10K 1/6W CARBON	
	R592	QRD167J-103	10K 1/6W CARBON	

Δ : SAFETY PARTS

Resistors

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R593	QRD167J-103	10K 1/6W CARBON	
	R594	QRD167J-103	10K 1/6W CARBON	
	R595	QRD167J-103	10K 1/6W CARBON	
	R596	QRD167J-103	10K 1/6W CARBON	
	R597	QRD167J-103	10K 1/6W CARBON	
	R598	QRD167J-103	10K 1/6W CARBON	
	R599	QRD167J-224	220K 1/6W CARBON	
	R600	QRD167J-224	220K 1/6W CARBON	
	R601	QRD167J-103	10K 1/6W CARBON	
	R602	QRD167J-103	10K 1/6W CARBON	
	R603	QRD167J-103	10K 1/6W CARBON	
	R604	QRD167J-103	10K 1/6W CARBON	
	R605	QRD167J-103	10K 1/6W CARBON	
	R606	QRD167J-103	10K 1/6W CARBON	
	R607	QRD167J-103	10K 1/6W CARBON	
	R608	QRD167J-103	10K 1/6W CARBON	
	R613	QRD167J-103	10K 1/6W CARBON	
	R614	QRD167J-103	10K 1/6W CARBON	
	R615	QRD167J-103	10K 1/6W CARBON	
	R616	QRD167J-103	10K 1/6W CARBON	
	R617	QRD167J-103	10K 1/6W CARBON	
	R618	QRD167J-103	10K 1/6W CARBON	
	R619	QRD167J-153	15K 1/6W CARBON	
	R620	QRD167J-153	15K 1/6W CARBON	
	R621	QRD167J-104	100K 1/6W CARBON	
	R622	QRD167J-104	100K 1/6W CARBON	
	R623	QRD167J-103	10K 1/6W CARBON	
	R624	QRD167J-103	10K 1/6W CARBON	
	R625	QRD167J-103	10K 1/6W CARBON	
	R626	QRD167J-103	10K 1/6W CARBON	
	R627	QRD167J-243	24K 1/6W CARBON	
	R628	QRD167J-243	24K 1/6W CARBON	
	R629	QRD167J-123	12K 1/6W CARBON	
	R630	QRD167J-123	12K 1/6W CARBON	
	R631	QRD167J-472	4.7K 1/6W CARBON	
	R632	QRD167J-472	4.7K 1/6W CARBON	
	R633	QRD167J-183	18K 1/6W CARBON	
	R634	QRD167J-183	18K 1/6W CARBON	
	R635	QRD167J-822	8.2K 1/6W CARBON	
	R636	QRD167J-822	8.2K 1/6W CARBON	
	R637	QRD167J-822	8.2K 1/6W CARBON	
	R638	QRD167J-822	8.2K 1/6W CARBON	
	R639	QRD167J-113	11K 1/6W CARBON	
	R640	QRD167J-113	11K 1/6W CARBON	
	R641	QRD167J-273	27K 1/6W CARBON	
	R642	QRD167J-273	27K 1/6W CARBON	
	R643	QRD167J-183	18K 1/6W CARBON	
	R644	QRD167J-183	18K 1/6W CARBON	
	R645	QRD167J-912	9.1K 1/6W CARBON	
	R646	QRD167J-912	9.1K 1/6W CARBON	
	R647	QRD167J-183	18K 1/6W CARBON	
	R648	QRD167J-183	18K 1/6W CARBON	
	R649	QRD167J-822	8.2K 1/6W CARBON	
	R650	QRD167J-822	8.2K 1/6W CARBON	
	R653	QRD167J-153	15K 1/6W CARBON	
	R654	QRD167J-153	15K 1/6W CARBON	
	R655	QRD167J-333	33K 1/6W CARBON	
	R656	QRD167J-333	33K 1/6W CARBON	
	R657	QRD167J-622	6.2K 1/6W CARBON	
	R658	QRD167J-622	6.2K 1/6W CARBON	
	R659	QRD167J-122	1.2K 1/6W CARBON	
	R660	QRD167J-122	1.2K 1/6W CARBON	
	R661	QRD167J-823	82K 1/6W CARBON	
	R662	QRD167J-823	82K 1/6W CARBON	
	R663	QRD167J-473	47K 1/6W CARBON	
	R664	QRD167J-473	47K 1/6W CARBON	
	R665	QRD167J-183	18K 1/6W CARBON	
	R666	QRD167J-183	18K 1/6W CARBON	
	R667	QRD167J-331	330 1/6W CARBON	
	R668	QRD167J-331	330 1/6W CARBON	
	R703	QRD167J-104	100K 1/6W CARBON	
	R704	QRD167J-104	100K 1/6W CARBON	
	R705	QRD167J-104	100K 1/6W CARBON	
	R706	QRD167J-104	100K 1/6W CARBON	
	R707	QRD167J-182	1.8K 1/6W CARBON	
	R708	QRD167J-182	1.8K 1/6W CARBON	
	R709	QRD167J-821	820 1/6W CARBON	
	R710	QRD167J-821	820 1/6W CARBON	
	R711	QRD167J-910	91 1/6W CARBON	
	R712	QRD167J-910	91 1/6W CARBON	
	R713	QRD167J-103	10K 1/6W CARBON	
	R715	QRD167J-102	1K 1/6W CARBON	
	R716	QRD167J-102	1K 1/6W CARBON	
	R717	QRD167J-103	10K 1/6W CARBON	
	R718	QRD167J-103	10K 1/6W CARBON	
	R719	QRD167J-473	47K 1/6W CARBON	
	R720	QRD167J-473	47K 1/6W CARBON	
	R721	QRD167J-132	1.3K 1/6W CARBON	
	R722	QRD167J-132	1.3K 1/6W CARBON	
	R725	QRD167J-512	5.1K 1/6W CARBON	
	R726	QRD167J-512	5.1K 1/6W CARBON	
	R727	QRD167J-105	1M 1/6W CARBON	
	R729	QRD167J-122	1.2K 1/6W CARBON	
	R730	QRD167J-122	1.2K 1/6W CARBON	
	R731	QRD167J-473	47K 1/6W CARBON	

Δ : SAFETY PARTS

Resistors

ITEM	PART NUMBER	DESCRIPTION	AREA
R732	QRD167J-473	47K 1/6W CARBON	
R733	QRD167J-432	4.3K 1/6W CARBON	
R734	QRD167J-432	4.3K 1/6W CARBON	
R735	QRD167J-473	47K 1/6W CARBON	
R736	QRD167J-473	47K 1/6W CARBON	
R737	QRD167J-473	47K 1/6W CARBON	
R738	QRD167J-473	47K 1/6W CARBON	
R739	QRD167J-224	220K 1/6W CARBON	
R740	QRD167J-224	220K 1/6W CARBON	
R741	QRD167J-105	1M 1/6W CARBON	
R742	QRD167J-331	330 1/6W CARBON	
R745	QRD167J-105	1M 1/6W CARBON	
R746	QRD167J-105	1M 1/6W CARBON	
R747	QRD167J-472	4.7K 1/6W CARBON	
R761	QRD161J-221	220 1/6W CARBON	
R762	QRD161J-221	220 1/6W CARBON	
R763	QRD167J-562	5.6K 1/6W CARBON	
R764	QRD167J-562	5.6K 1/6W CARBON	
R768	QRD167J-102	1K 1/6W CARBON	
R769	QRD167J-102	1K 1/6W CARBON	
R770	QRD167J-332	3.3K 1/6W CARBON	
R771	QRD167J-332	3.3K 1/6W CARBON	
R772	QRD167J-202	2K 1/6W CARBON	
R773	QRD167J-102	1K 1/6W CARBON	
R774	QRD167J-102	1K 1/6W CARBON	

△ (SAFETY PARTS)

Others

ITEM	PART NUMBER	DESCRIPTION	AREA
J501	EMN00TV-412B	4P PIN JACK (PHONO, AUX INPUT)	
K501	ENZ8101-007	INDUCTOR	H
K502	ENZ8101-007	INDUCTOR	H
L501	EQL0001-R45	INDUCTOR	
L502	EQL0001-R45	INDUCTOR	
L503	EQL4004-1R0	INDUCTOR	H
JB001	EMV7140-L15R	CONNECTOR(15PIN) TO MAIN PCB	
JB002	EMV7125-010R	CONNECTOR(10PIN) TO MAIN PCB	
JB003	EMV7125-010R	CONNECTOR(10PIN) REGULATOR PCB	
JB004	EMV7125-011R	CONNECTOR(11PIN) AMP. PCB	

△ (SAFETY PARTS)

Accessories List

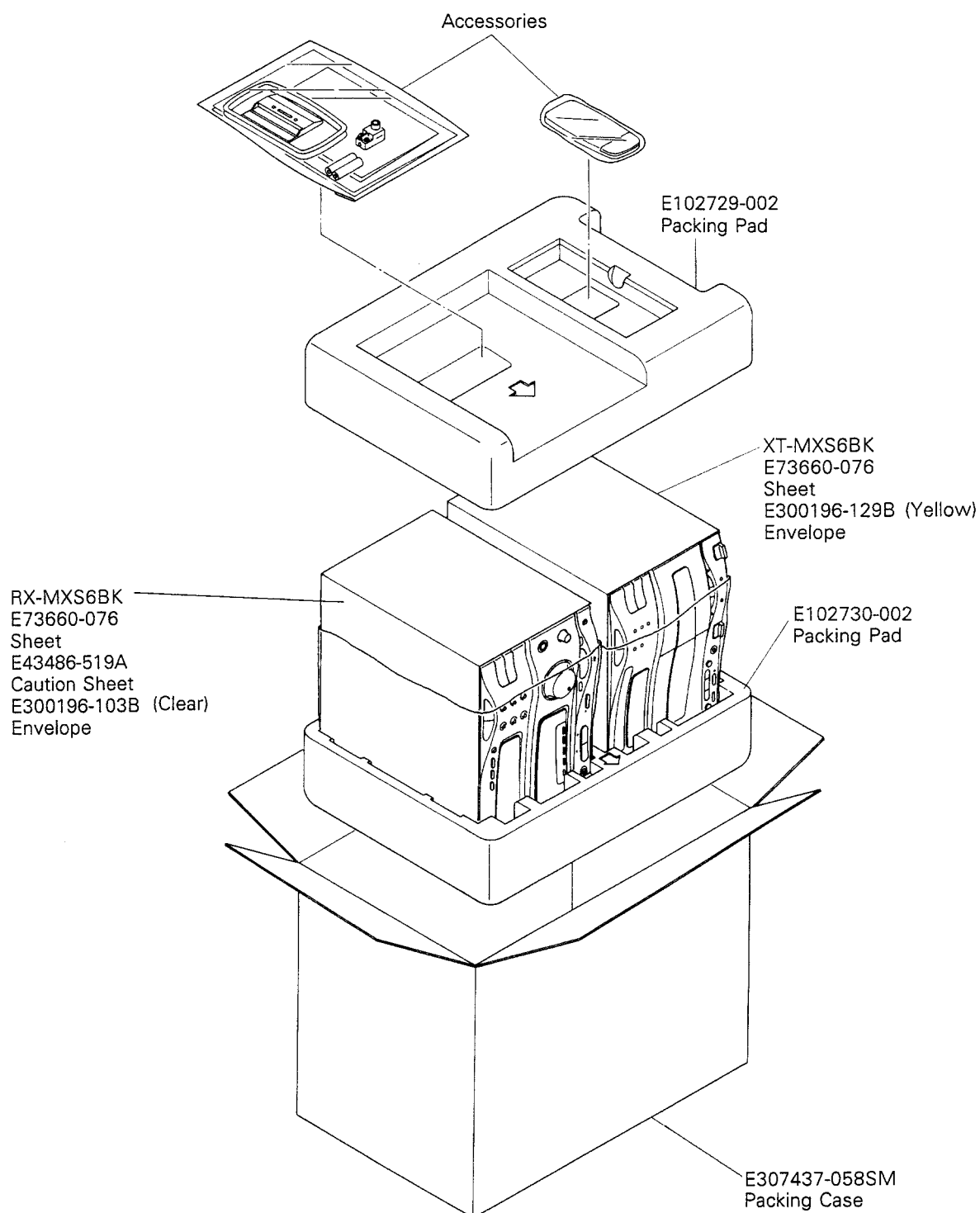
Part Number	Part Name	Q'ty	Description	Areas
E30580-1975A	INSTRUCTION BOOK	1		A
E30580-1975ABS	INSTRUCTION BOOK	1		BS
E30580-1976A	INSTRUCTION BOOK	1		EF
E30580-1976A	INSTRUCTION BOOK	1		G
E30580-1976A	INSTRUCTION BOOK	1		GI
E30580-1977A	INSTRUCTION BOOK	1		EN
BT20060	WARRANTY CARD	1		BS
BT-20134	WARRANTY CARD	1		G
BT-20122	WARRANTY CARD	1		A
BT-20122-1	STICKER	1		A
BT-20066A	EEC AGENCY	1		BS
E43486-340A	SAFETY SHEET	1		BS
EWP502-005K	BILT-IN ANTENNA	1		A
EWP502-005K	BILT-IN ANTENNA	1		BS
EWP502-005K	BILT-IN ANTENNA	1		EF
EWP502-005K	BILT-IN ANTENNA	1		EN
EWP502-005K	BILT-IN ANTENNA	1		GI
E67007-001	ANTENNA WIRE	1		G
EMZ2001-014	ADAPTOR	1		A
EMZ2001-014	ADAPTOR	1		BS
EMZ2001-014	ADAPTOR	1		EF
EMZ2001-014	ADAPTOR	1		EN
EMZ2001-014	ADAPTOR	1		GI
EQB4001-015	LOOP ANTENNA	1		
EWP902-031	PLUG CORD ASSY	2		
RM-SEMXS6U	REMOTE CONTROLLER	1		
UM-4NJ-2PSA	BATTERY	1		
QPGA025-03505	ENVELOPE	1		A
QPGA025-03505	ENVELOPE	1		EF
QPGA025-03505	ENVELOPE	1		EN
QPGA025-03505	ENVELOPE	1		G
QPGA025-03505	ENVELOPE	1		GI
QPGA025-03505B	ENVELOPE	1		BS

The Marks for Designated Areas

A Australia BS the U.K. EN Scandinavia
 EF Continental Europe G Germany GI Italy
 No mark indicates all areas.

△ SAFETY PARTS

Packing Materials and Part Numbers



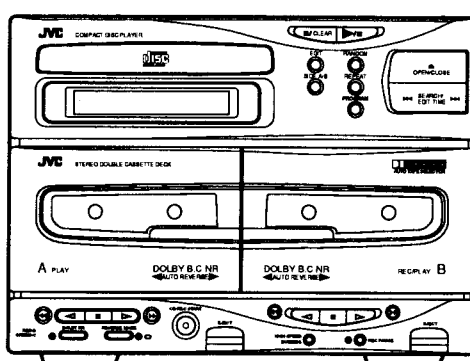
— MEMO —

JVC

SERVICE MANUAL

COMPACT COMPONENT SYSTEM

CA-MXS6BK (Unit No. XT-MXS6BK)



COMPACT
disc
DIGITAL AUDIO

Note

1. This manual is for one part of the titled model consisting of the plural units as detailed.

Unit No Consisted	Part of Model	Manual No
RX-MXS6BK	TUNER-AMPLIFIER	20415
XT-MXS6BK	CD-DECK	20416

2. RX-MXS6BK is needed for the power supply when servicing the unit not provided with the power (mains) cord.

3. For instruction manual, packing materials and accessories, please refer to the manual of RX-MXS6BK.

Contents

Safety Precautions	1-2	Replacement of Laser Pickup	1-22
Important for Laser Products	1-3	Troubleshooting	1-23
Description of Major LSIs	1-4	Exploded View of Assemblies and	
Internal Block Diagrams of Other ICs	1-10	Application Points for Grease	1-29
Internal Connection of FL Display Tube	1-12	Block Diagrams	1-30
Disassembly Procedures	1-13	Schematic Diagrams	Insertion
Adjustment Procedures	1-17	Printed Circuit Boards	Insertion
Maintenance of Laser Pickup	1-21	Parts List	2-1
Flow of Functional Operation			
Until TOC is Read	1-22		

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal parts of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.).

● Alternate check method

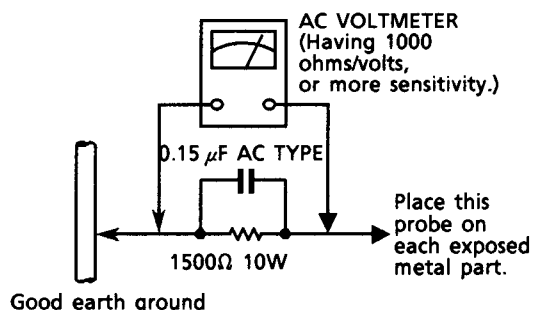
Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor.

Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).

This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Important for Laser Products

1. **CLASS 1 LASER PRODUCT**
2. **DANGER** : Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION** : There are no serviceable parts inside the Laser Unit. Do not disassemble the Laser Unit. Replace the complete Laser Unit if it malfunctions.
4. **CAUTION** : The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when the drawer is open and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. **CAUTION** : If safety switches malfunction, the laser is able to function.
6. **CAUTION** : Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
7. **CAUTION** : The compact disc player provides a laser diode of wavelength 780-790nm and optical output power typical 3mW at the laser diode.

VARNING : Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

VARO : Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

ADVARSEL : Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

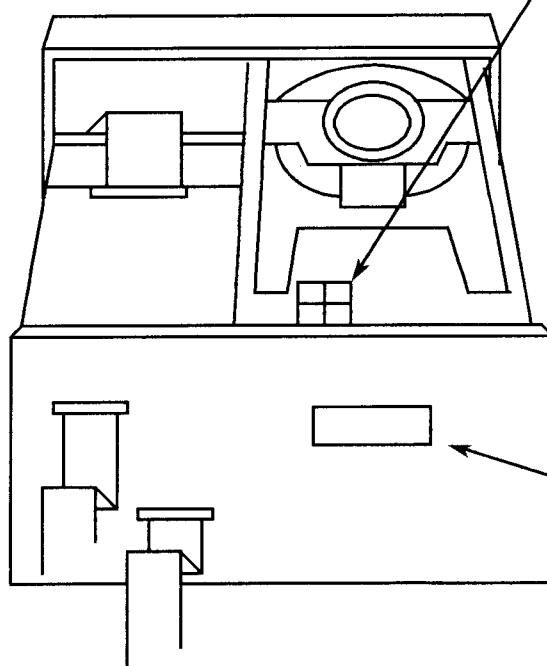
ADVARSEL : Usynlig laserstrålning ved åpning, når sikkerhetsbryteren er avslott. unngå utsettelse for stråling.

REPRODUCTION AND POSITION OF LABELS

WARNING LABEL

(Except for the U. S. A.)

DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	VARNING: Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)
ADVARSEL: Usynlig laserstrålning ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling. (d)	VARO: Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen. (f)



CLASS 1
LASER PRODUCT

CLASSIFICATION LABEL

(Except for the U. S. A. and Canada)

Description of Major LSIs

■ HD614081SD53 (IC491) : Deck System Controller

1. Terminal Layout

NR LED	1	64	A FWD LED
NR LED(C)	2	63	A REW LED
A.SPEED UP	3	62	B FWD LED
B.SPEED UP	4	61	B REV LED
MUSIC IN	5	60	REC LED
B FWD REEL MOTOR	6	59	REV. MODE
B REV REEL MOTOR	7	58	BIAS
B REV CAM MOTOR	8	57	NR OFF
B FWD CAM MOTOR	9	56	REC MUTE
A CAM SW 2	10	55	DCS IN
A CAM SW 1	11	54	DCS OUT
A CAM SW 0	12	53	GND
A PULSE IN	13	52	4.19MHz OSC IN
B CAM SW 2	14	51	4.19MHz OSC IN
B CAM SW 1	15	50	To VCC
B CAM SW 0	16	49	RESET IN
B PULSE IN	17	48	KEY&SW IN4
POWER OFF IN	18	47	KEY&SW IN3
GND	19	46	KEY&SW IN2
A FWD REEL MOTOR	20	45	KEY&SW IN1
A REV REEL MOTOR	21	44	KEY OUT 4
A REV CAM MOTOR	22	43	KEY OUT 3
A FWD CAM MOTOR	23	42	KEY OUT 2
NR REC	24	41	KEY OUT 1
A MUTE	25	40	SW OUT 2
B MUTE	26	39	SW OUT 1
PLAY MUTE	27	38	HI-SPEED DUB BING
CAP MOTOR ON	28	37	H.S CrO2
REC	29	36	H.S METAL
FADE CTRL	30	35	H.S NORM
BEQ	31	34	CrO2
+5V	32	33	METAL

2. Table of key matrix

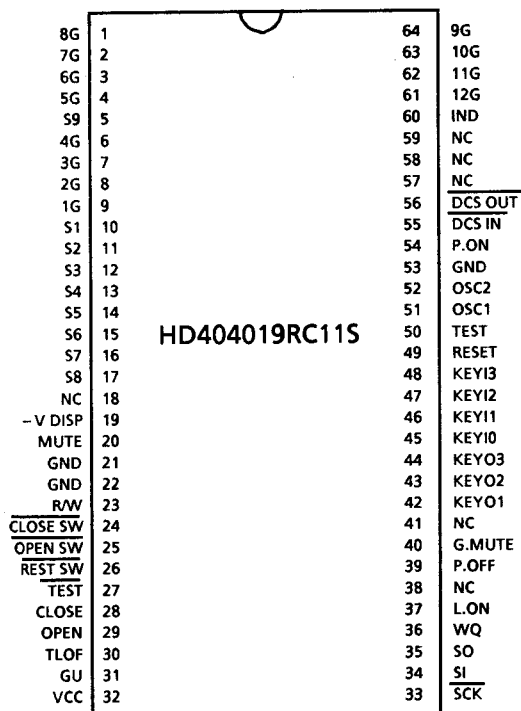
	KEY IN 1	KEY IN 2	KEY IN 3	KEY IN 4
KEY OUT 1	A ◀	A ◀◀	A ▶▶	A ▶
KEY OUT 2	B ◀	B ◀◀	B ▶▶	B ▶
KEY OUT 3	A ■	B ■	B REC PAUSE	
KEY OUT 4	A ▶▶ B	DOLBY	REV. MODE	CD. REC

3. Pin Functions

Pin NO	symbol	I/O	Function	Pin NO	symbol	I/O	Function
1	NR LED	O	DOLBY B indicator signal output	33	METAL	O	METAL Recording Equalizer control
2	NR LED (C)	O	DOLBY C indicator signal output	34	CrO2	O	CrO2 Recording Equalizer control
3	A SPEED UP	O	A deck Reel motor speed control output	35	H.S NORM	O	High speed Normal Recording Equalizer control
4	B SPEED UP	O	B deck Reel motor speed control output	36	H.S METAL	O	High speed METAL Recording Equalizer control
5	MUSIC IN	I	Music scan signal input	37	H.S CrO2	O	High speed CrO2 Recording Equalizer control
6	B FWD REEL MOTOR	O	FWD direction control for B reel motor	38	HI SPEED DUB BING	O	Recording Equalizer control
7	B REV REEL MOTOR	O	REV direction control for B reel motor	39	SW OUT1	O	Leaf switch output
8	B REV CAM MOTOR	O	REV direction control for B cam motor	40	SW OUT2	O	Leaf switch output
9	B FWD CAM MOTOR	O	FWD direction control for B cam motor	41	KEY OUT1	O	Key matrix output
10	A CAM SW2	I	A CAM SW input	42	KEY OUT2	O	Key matrix output
11	A CAM SW1	I	A CAM SW input	43	KEY OUT3	O	Key matrix output
12	A CAM SW0	I	A CAM SW input	44	KEY OUT4	O	Key matrix output
13	A PULSE IN	I	A deck reel pulse input	45	KEY&SW IN1	I	Key matrix and Leaf switch Input
14	B CAM SW2	I	B CAM SW input	46	KEY&SW IN2	I	Key matrix and Leaf switch input
15	B CAM SW1	I	B CAM SW input	47	KEY&SW IN3	I	Key matrix and Leaf switch Input
16	B CAM SW0	I	B CAM SW input	48	KEY&SW IN4	I	Key matrix and Leaf switch input
17	B PULSE IN	I	B deck reel pulse input	49	RESET IN	I	Reset signal input
18	POWER OFF IN	I	Power ON / OFF signal input	50	TO VCC	-	Connect to VCC
19	GND	-	Ground	51	OSC IN	I	Clock oscillator input
20	A FWD REEL MOTOR	O	FWD direction control for A reel motor	52	OSC IN	I	Clock oscillator input
21	A REV REEL MOTOR	O	REV direction control for A reel motor	53	GND	-	Ground
22	A REV CAM MOTOR	O	REV direction control for A cam motor	54	DCS OUT	O	DCS signal output
23	A FWD CAM MOTOR	O	FWD direction control for A cam motor	55	DCS IN	I	DCS signal input
24	NR REC	O	NR Rec control signal output to IC351	56	REC MUTE	O	Recording mute control signal output
25	A MUTE	O	A Deck play back mute signal output	57	NR OFF	O	NR ON/OFF control signal output to IC351
26	B MUTE	O	B Deck play back mute signal output	58	BIAS	O	BIAS control signal output
27	PLAY MUTE	O	Play back mute signal output	59	REV MODE	O	REV Mode indicator signal output
28	CAPSTAN ON	O	Capstan motor ON/OFF control	60	REC LED	O	Recording Indicator signal output
29	REC	O	PB / REC control signal output to IC331	61	B REV LED	O	B REV indicator signal output
30	FADE CTRL	O	Fade control signal output	62	B FWD LED	O	B FWD indicator signal output
31	BEQ	O	Equalizer switching signal	63	A REW LED	O	A REW indicator signal output
32	+5V	-	Power supply	64	A FWD LED	O	A FWD indicator signal output

■ HD404019RC11S (IC951) : CD SYSTEM CONTROLLER

1. Terminal Layout



2. Key matrix

	KEY IN 0	KEY IN 1	KEY IN 2	KEY IN 3
KEY OUT 1	—	PROGRAM	—	▶/
KEY OUT 2	⏮	REPEAT	RANDOM	▲
KEY OUT 3	■/CLEAR	SIDE A/B	EDIT	⏭

3. Pin Description

Pin No.	Symbol	I/O	Functions and Operations	Pin No.	Symbol	I/O	Functions and Operations
1~4	8G~5G	O	FL grid control output	34	(D IN) SI	I	Serial data input from IC841
5	S9	O	FL segment control output	35	(D OUT) SO	O	Serial data output for IC841
6~9	4G~1G	O	FL grid control output	36	WQ	I	Write request signal input
10~17	S1~S8	O	FL segment control output	37	L.ON	O	Laser on signal output
18	NC	--	Non connection	38,40 41	NC	--	Not used
19	-V DISP	I	FL Power supply	39	P.OFF	O	LSI power off signal output
20~22	NC	--	Not used	42~44	KEY OUT0 ~ KEY OUT3	O	Key matrix output
23	R/W	O	Read / Write signal output	45~48	KEY IN0 ~ KEY IN3	I	Key matrix input
24	CLOSE SW	I	Close switch : active low	49	RESET	I	Reset signal input
25	OPEN SW	I	Open switch : active low	50	TEST	I	Test mode input : connected to +5V
26	RESET SW	I	Reset switch : active low at the inmost position of pickup	51	OSC 1	I	Clock Oscillation Input
27	TEST	I	Test mode Input	52	OSC 2	O	Clock Oscillation output
28	CLOSE	O	Close signal output	53	GND	--	Ground
29	OPEN	O	Open signal output	54	P.ON	I	Power on signal input
30	TLOF	O	Tracking servo off signal output	55	DCS IN	I	Compu-link signal input
31	GU	O	Tracking gain up signal output	56	DCS OUT	O	Compu-link signal output
32	VCC	--	+ 5V	57~59	NC	--	Non connection
33	SCK	O	Clock output for IC841	60	IND	O	Auto power off indicator signal
				61~64	11G~9G	O	FL grid control output

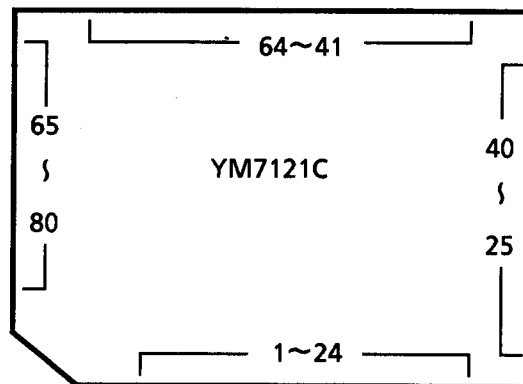
■ YM7121C (IC841)

1. Outline

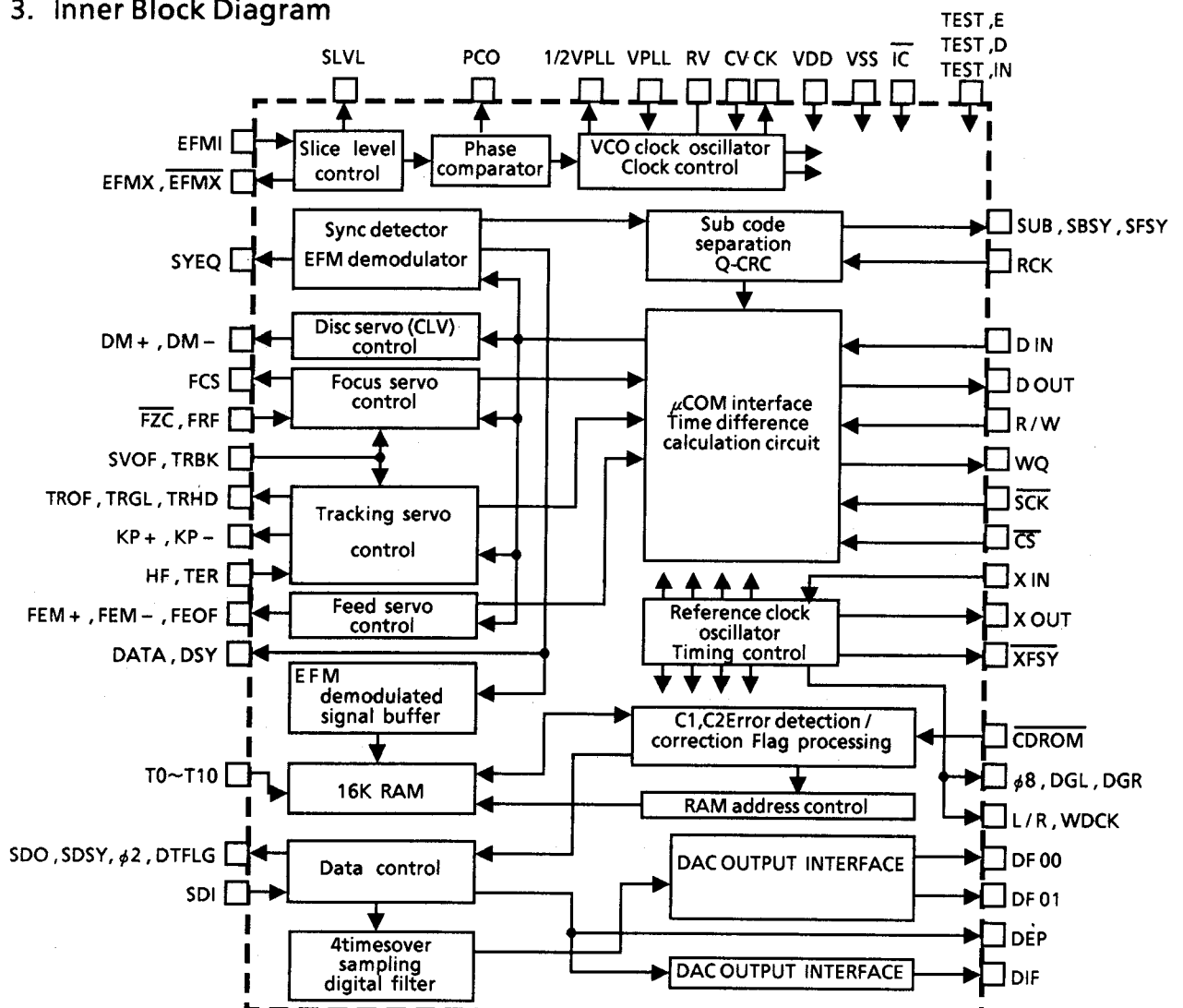
YM7121 is a C-MOS LSI for signal processing and servo control (SVC) in a CD player. It is used for the demodulation of the EFM signal from the laser pick up, detection / correction of the error signal, signal processing in digital filtering, etc. and for various servo controls (focusing, disc, tracking and feed servos).

And it contains digital interface which output the audio digital signals in S-RAM and CD-player. This digital interface matches EIAJ standards.

2. Top View



3. Inner Block Diagram



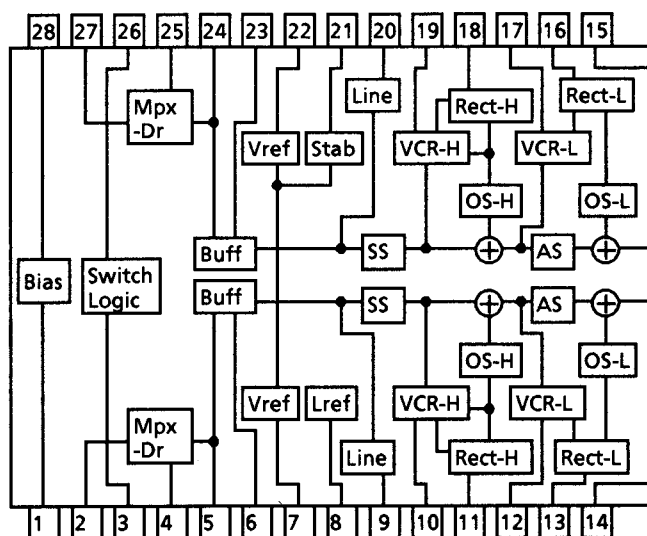
4. Terminal Function

Pin No.	Symbol	I/O	Function and Operation
1	CV	I	Adequate time constant is added to this terminal and input the PCO output. This makes the structure of clock reproduce circuit by inner VCO circuit.
2	RV	—	RV terminal is standard voltage terminal of inner VCO. And capacity for stabilizing is added to this terminal.
3 32 72	VDD	—	These are +5V power supply terminals.
4 5 70	TEST. IN TEST. E TEST. D	I I I	These terminals are for test.
6	SYEQ	O	This is the check output terminal, it becomes high when frame synchronizing signal detected from EFM pattern coincides frame synchronizing signal from internal counter.
7	DSY	O	DSY is synchronizing signal which becomes high when first signal of data output comes in. This terminal is the check terminal.
8	DATA	O	This terminal is for checks. The DATA is a serial signal of CK bit rate and it contains 8 bit EFM demodulation signal and 5 bit data control signal in 17 bit.
9	CK	O	CK has 4.3218 MHz clock.
10~19	T0~T9	I	This terminal is internal RAM test terminal, and connected GND.
22	DEP	O	De-emphasis is necessary when this terminal is high.
23	DIF	O	DIF is digital audio interface format output matched EIAJ standards.
24	SDO	O	SDO is a serial signal output of $\phi 2$ bit rate. (The MSB puts in at first.)
25	SDI	I	SDI is the input terminal of 4 times over sampling digital filter. It is usually connected with SDO.
26	SDSY	O	This terminal changes the Lch/Rch by LSB of the SDO.
27 30 33 34 35 36 37 38 39 40 41 42 43 44 45	DTFLG ~~XOUT~~ XFSY SUB SBSY RCK ~~SFSY~~ CDROM $\Phi 8$ WDCK L/R DGL DGR DF01 DF00	O O O O O O O O O O O O O O O	Not used.
28	$\phi 2$	O	$\phi 2$ is 2.1168 MHz crystal clock.
29, 52, 77	VSS	—	GND
31	XIN	I	Input from crystal clock.
46	$\overline{\text{SCK}}$	I	This terminal is connected to μCOM . It is an input terminal that carries the clock signal for data transfers.
47	R/W	I	This connects with microcomputer and it is an output terminal for switching data transmission mode. it enables to transmit data from SVC to microcomputer when R/M is "L" and from microcomputer to SVC when R/W is "H".
48	$\overline{\text{CS}}$	I	This is a chip select terminal for YM7121.
49	DOUT	O	This terminal is the data output terminal connected to μCOM . When R/W is low, data is transferred from YM7121 to μCOM , according to the SCK clock input.
50	WQ	O	This terminal is connected to μCOM . It is a request signal which demands to μCOM inputting the data transfer (YM7121 to μCOM).
51	DIN	I	This is a data input terminal connected to μCOM . When R/W is high, the data is transferred from μCOM to YM7121 according to the SCK clock input.

Pin No.	Symbol	I/O	Function and Operation
53 54	DM+ DM-	O O	These terminals output the PWM to control the speed of spindle motor. The speed of the motor goes up when DM+ is high, and slows down when DM- is high: both terminals can not become high simultaneously.
55 56 60 61 62 63 64	HF TER TRHD TRGL TROF KP- KP+	I I O O O O O	When tracks are being crossed during serches, the amplitude variation of the generated HF signal is sampled at the zero - cross point of the tracking error signal TER and the TROF signal is output. The level variations of this signal turn the servo on and off, greatly facilitaing track acquisition. KP+ or KP- is output to conduct tracking, and TRHD is output during tracking to cause generation of the tracking error signal. The TRGL signal is for increasing the tracking gain after tracking is completed.
57 58 59	FEM+ FEM- FEOF	O O O	The FEM+ and FEM- are output as high speed feed signals, and FEOF signal is output for cutting the feed servo during high speed feed.
65	TRBK	I	TRBK is input to apply tracking brake from outside. TRGL becomes low with high input and inner control signal TBKE becomes high.
66	SVOF	I	When the signal inputs to SVOF, tracking and feed servo set to OFF. TROF and FEOF become "H" with high input, and TRHD, KP+, KP- become low.
67 58 59	FZC FCS FRF	I O I	These terminals are used for controlling the focus servo. The FCS is for a leading signal of Focusing; the signal, generated when the focus point is achieved, terminate the focusing operation; and FCO flag is dropped internally by FRF signal generated when reflected light is detected.
71	IC	I	YM7121 needs initializing when power supply turn on. IC will be low more than 400 μ s since XIN is input clock with VDD standard.
73 74 75	SLVL EFMX EFMX	O O O	Amplitude limited, mutually anti-phased signals are output from EFMX and EFMX. Slice level is controlled by these signals and external amplifier. SLVL is output amplitude alteration component of both terminals. When integral circuit is connected to external. YM7121 easily can control slice level.
76	EFMI	I	This terminal is input EFM signal. (1~2 Vpp)
78	PCO	O	This terminal outputs the phase difference when the polarity of the clock and the EFM pattern changes.
79	VPLL	I	This terminal is input D.C. voltage matched VCO free run frequency. (17.2872 MHz)
80	1/2 VPLL	O	This terminal outputs a half of VPLL input, and capacity for stabilizing is added to this terminal.

■ AN7374K (IC351) : Dolby IC

1. Block Diagram

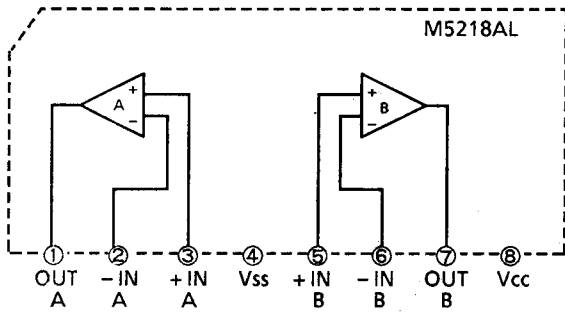


2. Pin function

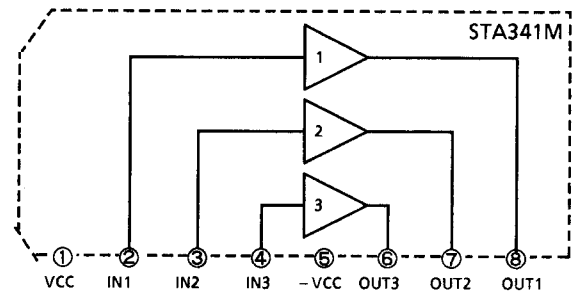
Pin No	Function	Pin No	Function
1	GND	15	Ch. B REC-OUT
2	Ch. A REC-IN	16	Ch. B LLS control signal rectifier
3	C-type/B-type/OFF NR switch	17	Ch. B LLS control resistance
4	Ch. A PB-IN	18	Ch. B HLS control signal rectifier
5	Ch. A MPX filter sriver output	19	Ch. B HLS control resistance
6	Ch. A Processor input	20	Ch. B LINE -OUT
7	Ch. A reference voltage output	21	Reference voltage input
8	Reference curent generator	22	Ch. B reference voltage output
9	Ch. A LINE -OUT	23	Ch. B Processor input
10	Ch. A HLS control resistance	24	Ch. B MPX filter sriver output
11	Ch. A HLS control signal rectifier	25	Ch. B PB-IN
12	Ch. A LLS control resistance	26	PB/REC/PBmpx Mode switch
13	Ch. A LLS control signal rectifier	27	Ch. B REC-IN
14	Ch. A REC-OUT	28	Vcc

Internal Block Diagram of Other ICs

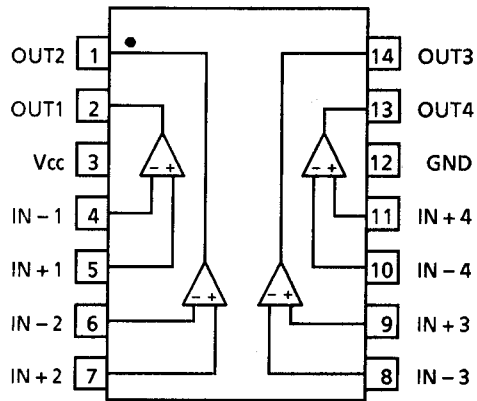
■ M5218AL (IC 762,781,803)



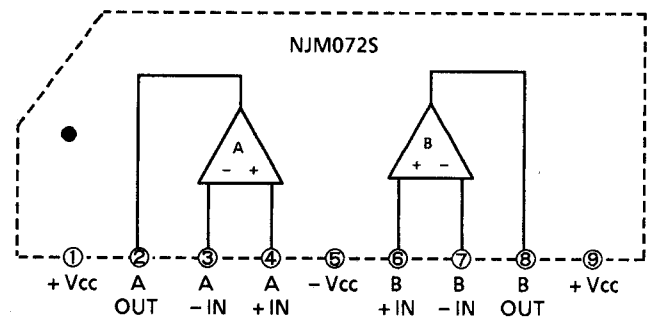
■ STA341M(A) (IC761) : Motor Driver



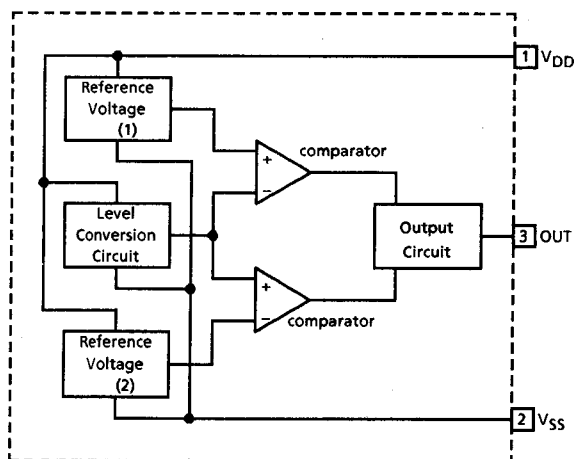
■ XRA/BA10339 (IC802) : Comparator



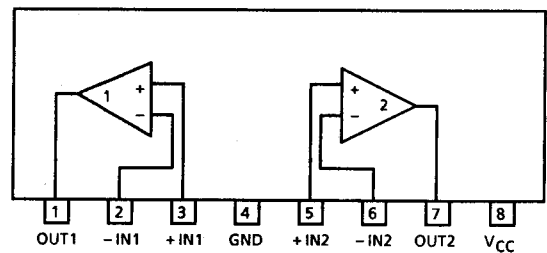
■ NJM072S (IC801) : Dual OP Amp



■ MN1281 (P.Q) IC952: Reset IC



■ XRA/BA15218 (IC871) : Dual OP Amp



Pin No.	Pin Name	Functions
1	V _{DD}	Power supply
2	V _{SS}	Ground
3	OUT	Reset signal output : Low level is output when resetting : High level is output when cancelling the reset.

■ MN35501 (IC873) : D/A converter

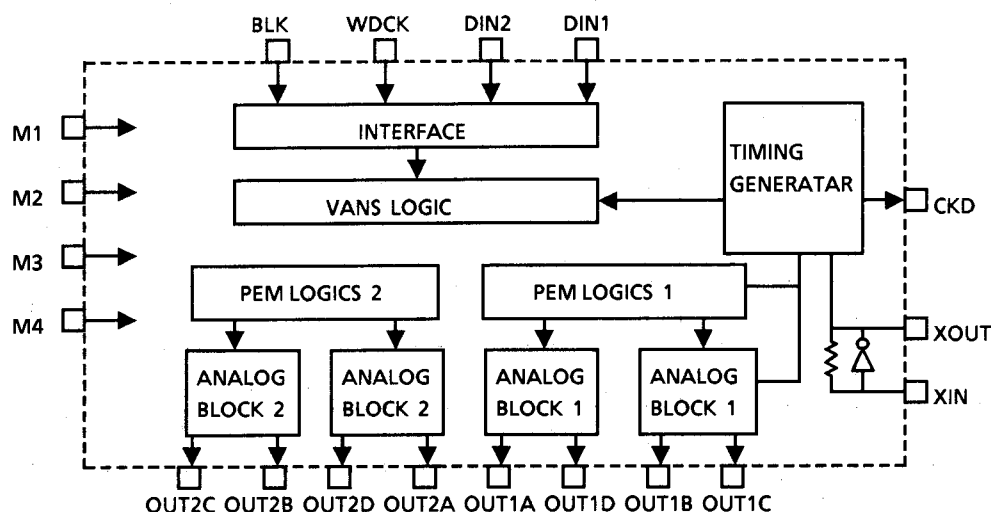
1. Terminal Layout

DIN1	1	28	RSTB
DIN2	2	27	M4
WDCK	3	26	M3
BCK	4	25	DVDD1
DVDD2	5	24	XIN
CKO	6	23	XOUT
DVSS2	7	22	DVSS1
M1	8	21	M2
OUT1C	9	20	OUT2C
OUT1B	10	19	OUT2B
AVDD1	11	18	AVDD2
OUT1D	12	17	OUT2D
OUT1A	13	16	OUT2A
AVSS1	14	15	AVSS2

2. Functions

Pin No.	Symbol	I/O	Function
1,2	DIN1,DIN2	I	Serial data input
3	WDCK	I	Word clock input
4	BCK	I	Bit clock input
5	DVDD2	—	Power supply for digital circuit
6	CKO	O	Clock output
7	DVSS2	—	GND for digital circuit
8	M1	I	Input for mode select
9,10	OUT1C,OUT1B	O	PEM signal output (Channel 1)
11	AVDD1	—	Power supply for analog circuit (Channel 1)
12,13	OUT1D,OUT1A	O	PEM signal output (Channel 1)
14	AVSS1	—	GND for analog circuit (Channel 1)
15	AVSS2	—	GND for analog circuit (Channel 2)
16,17	OUT2A,OUT2D	O	PEM signal output (Channel 2)
18	AVDD2	—	Power supply for analog circuit (Channel 2)
19,20	OUT2B,OUT2C	O	PEM signal output (Channel 2)
21	M2	I	Input for mode select
22	DVSS1	—	GND for clock circuit
23,24	XOUT,XIN	—	Oscillation terminal
25	DVDD1	—	Power supply for clock circuit
26,27	M3,M4	I	Input for mode select
28	RSTB	I	Reset input (Low active)

3. Block Diagram



■ TA8409S (IC451~454) : DC MOTOR DRIVER.

IN2	1
VCC	2
OUT2	3
NC	4
GND	5
VS	6
OUT1	7
Vref	8
IN1	9

Function

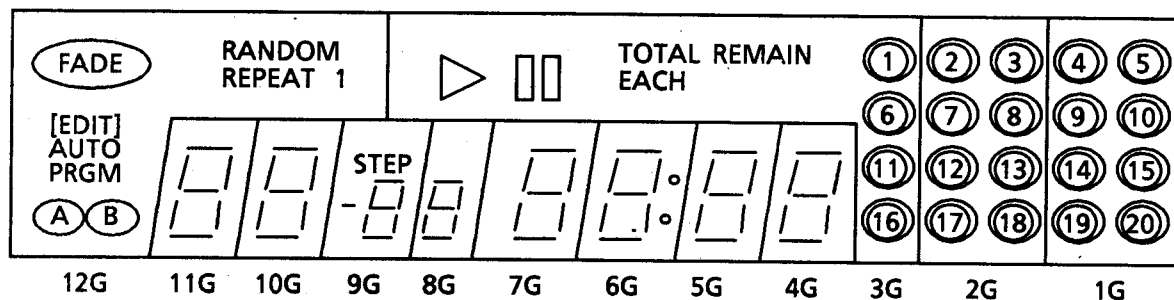
INPUT		OUTPUT		MODE
IN1	IN2	OUT1	OUT2	
0	0	∞	∞	STOP
1	0	H	L	OPEN
0	1	L	H	CLOSE
1	1	L	L	BRAKE

∞: High impedance

Internal Connections for the FL Display Tube

■ ELU0001-151:(FL991)

1. Grid Layout



2. Pin Connections

TERMINAL NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
ELECTRODE	F1	F1	NP	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G	NP	NP	NP

TERMINAL NO.	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
ELECTRODE	NP	NP	NP	NP	NP	NP	NP	S1	S2	S3	S4	S5	S6	S7	S8	S9	NP	F2	F2

(Note) F: Filament G: Grid NP: NoPin NC: No Connection P1~P9: Anode

3. Anode Connection Table

	12G	11G	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
S1	FADE	a	a	a	a	a	a	a	a	(1)	(2)	(4)
S2	[EDIT]	b	b	b	b	b	b	b	b	(6)	(7)	(9)
S3	AUTO	c	c	c	c	c	c	c	c	(11)	(12)	(14)
S4	PRGM	d	d	d	d	d	d	d	d	(16)	(17)	(19)
S5	A	e	e	e	e	e	e	e	e	▶	(3)	(5)
S6	B	f	f	f	f	f	f	f	f		(8)	(10)
S7	RANDOM	g	g	g	g	g	g	g	g	TOTAL	(13)	(15)
S8	REPEAT	---	---	STEP	---	---	○	---	---	EACH	(18)	(20)
S9	1	---	---	(-)	---	---	---	---	---	REMAIN	---	---

Disassembly Procedures

(NOTE) Cassette deck control P.C.Board

- ※ Install JB311 on the PCB. (ENJ-073-1) so that it's pin1 which is marked with white will face the front panel side.

■ Top cover removal

1. Remove the screws fastening both sides of the Top cover and rear side.
2. Remove the Top cover spreading both sides and lifting the rear up.

■ Front panel block removal

1. Remove the 2 screws ④.
2. Disconnect the connectors (P331,P333,P490,P491,P492,P493,P901,FW495,FW496).
3. Remove the 2 screws ⑤ fixing the front panel.
4. Remove the screw ⑥ on the bottom.
5. Release the 3 hooks ③ and remove the front panel block.

■ CD mechanism assembly removal

1. Remove the 3 screws of the rear side.
2. Remove the 2 screws ④ fixing the CD mechanism chassis.
3. Take out the CD mechanism assembly with CD PCB after unplugging the connectors (J701,J702,P901).
4. Remove the 3 screws ⑤ fixing the CD mechanism assembly.
5. Remove the connectors (P801,P802,P803) and the CD mechanism assembly.

■ Tray removal

1. Remove the CD mechanism assembly.
2. Switch on the power of RX-MXS6BK .
Press the OPEN / CLOSE switch to bring the tray forward and with the tray forward, switch off the power.
3. Remove the screw ③ on the tray .
4. Pull the tray toward the front to move it.

(Note)

If the power does not come on due to breakdown or the insert a Philips screwdriver through the hole at the bottom of the CD the mechanism assembly and turn it counter-clockwise to bring the tray forward ③.

■ Cassette mechanism assembly removal

1. Remove the front panel assembly.
2. Remove the 8 blue colored screws ⑧ ① fixing the cassette mechanism.
3. Push the cassette button and remove the cassette mechanism assembly.

(Note)

The cassette mechanism is grounded through the bottom cover, so when checking the operations with the bottom cover removed (especially when checking the signal system), be sure to ground the chassis by using an alligator clip or other suitable gadget. Also, this mechanism is designed for pack sensing, remember that it can not be operated without any tape.

■ Cassette lid removal

1. Open the doors and slide them in the direction of the arrows.

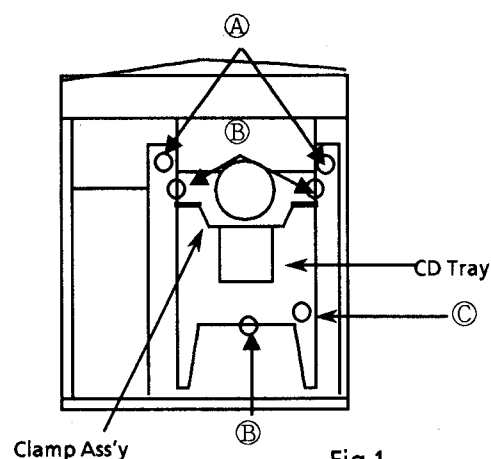


Fig 1

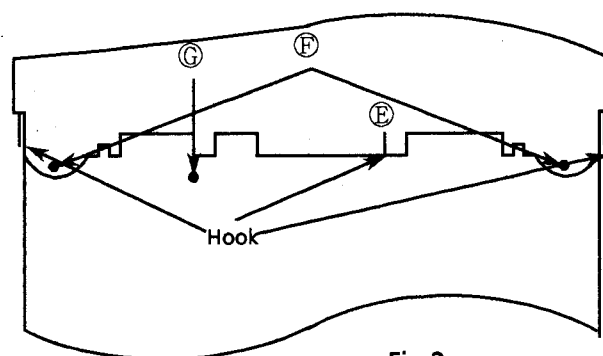


Fig 2

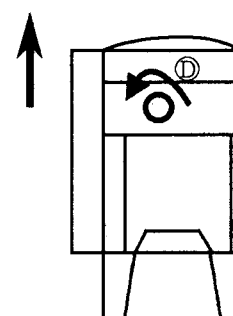


Fig 3

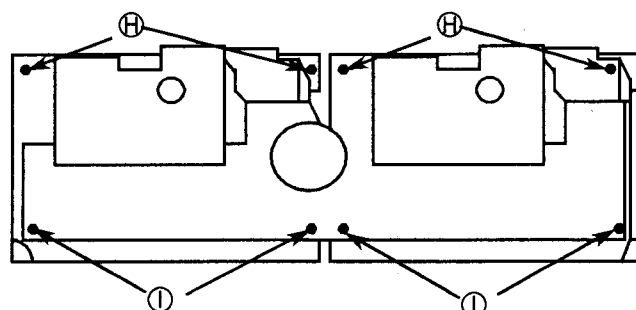


Fig 4

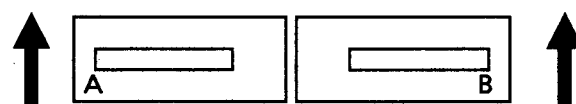


Fig 5

Disassemble of the CD mechanism assembly

■ Pickup removal

1. Remove the cd mechanism assembly.
2. Release the shaft to remove the pickup (Fig 6).

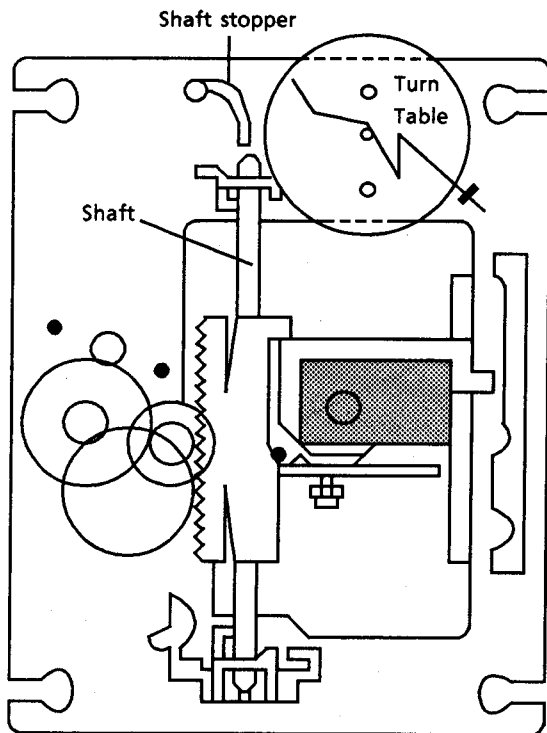


Fig 6 CD mechanism assembly

■ Spindle motor removal

1. Remove the cd mechanism assembly.
2. Remove the turntable, and remove the two screws retaining the spindle motor.
3. Remove the screws retaining the spindle and feed motor P.C. Board and unsolder it.

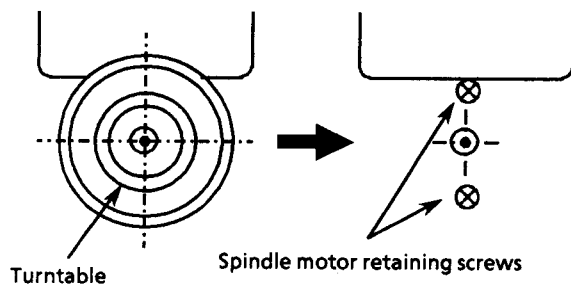


Fig 7

■ Spindle motor installation

1. Tighten the 2 screws to the same torque.
2. Fasten the spindle and feed motor P.C. board with the screw and solder.
3. Install the turntable. When installing, press straight down at the center of the turntable until the distance from the surface of the mechanism base to the turntable is exactly $19.4 \pm 0.1\text{mm}$.

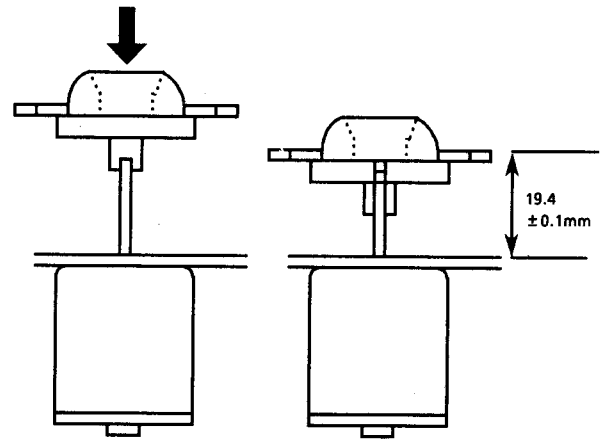


Fig 8

4. After inserting the turntable, bond the motor shaft and turntable together (at the section marked by an arrow in fig 9 on the left below).

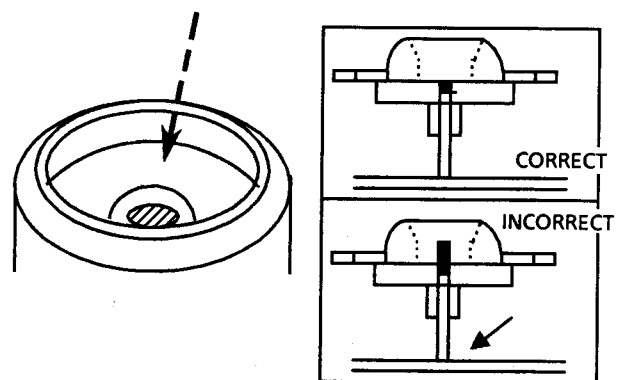


Fig 9

5. Use "LOCKTITE" #460 bonding agent, and apply as little as possible. Take care not to allow any excess bonding agent to get onto the turntable. Be extremely careful not to allow bonding agent to adhere to the motor bearings (the section marked by an allow in fig 9 on the right).

Disassemble of the cassette mechanism

■ Cassette controller PCB (ENJ-073-2) removal

1. Remove the cassette mechanism assembly.
2. Release the 8 hooks to remove the controller PCB (Fig 10).

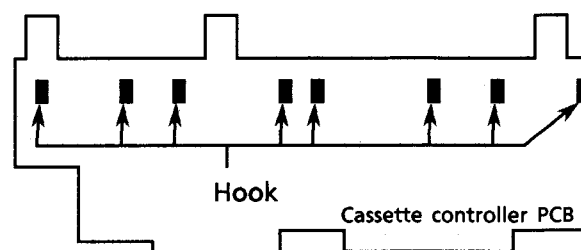


Fig 10

■ Head assembly removal

1. Remove the cassette mechanism assembly.
2. Unsolder the flexible wire (Fig 12).
3. Remove the 2 screws ⑩ fixing the head assembly (Fig 17).

※ Note

The direction of the head is changed with the head gear. When servicing, install the head gear according to the direction of the head. Refer to fig 11.

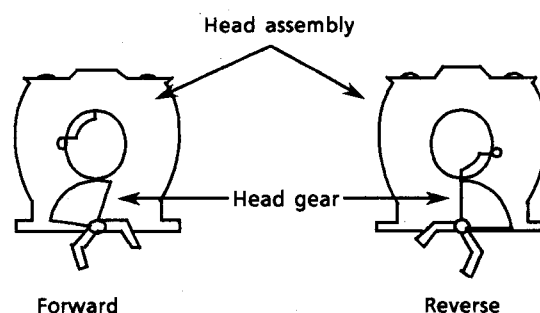


Fig 11

■ Pinch roller arm assembly removal

1. Release the return spring (Fig 17).
2. Release the hook holding the pinch roller arm assembly to remove the assembly (Fig 12).

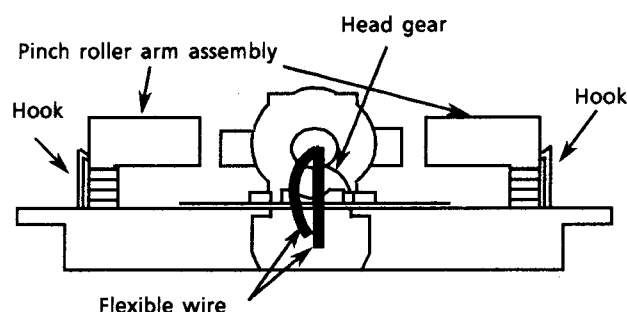


Fig 12

■ Reel motor PCB removal

1. Remove the cassette mechanism assembly.
 2. Remove the cassette controller PCB.
 3. Remove the screw ⑪ fixing the reel motor PCB.
 4. Unsolder the reel motor PCB.
 5. Remove the PCB.
- Be careful so that stress is not added to the terminals of the motor.

■ Capstan motor removal

1. Remove the cassette mechanism assembly.
2. Remove the reel motor PCBs.
3. Remove the 4 screws ⑫ fixing the bracket (Fig 13).
4. Remove the motor with the bracket,
5. Remove the 2 screws fixing the motor and the bracket.

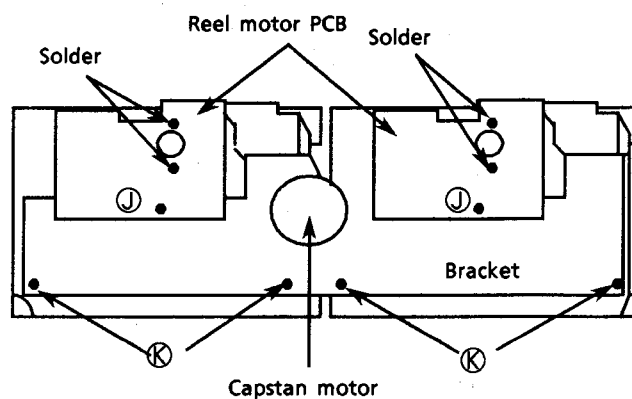


Fig 13

■ Reel motor removal

1. Remove the cassette mechanism assembly.
2. Remove the reel motor PCB.
3. Remove the FR arm assembly (Fig 17).
4. Remove the screw ⑬ fixing the motor (Fig 17).
5. Remove the hooks fixing the motor to remove the motor.

■ Fly wheel removal

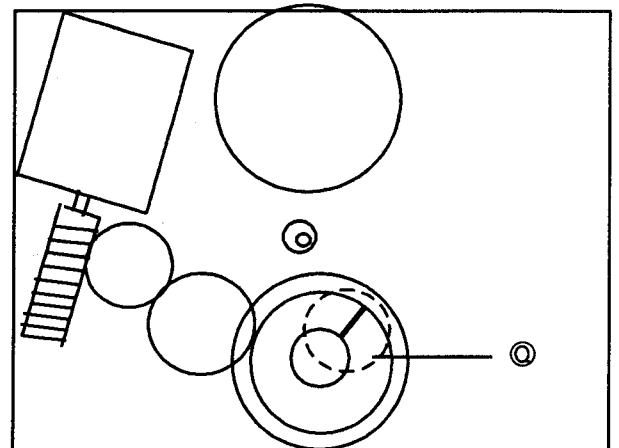
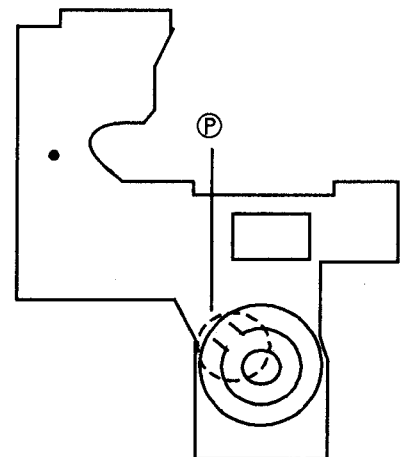
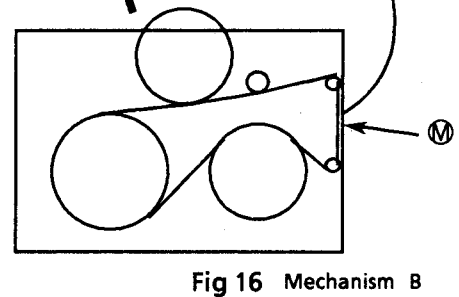
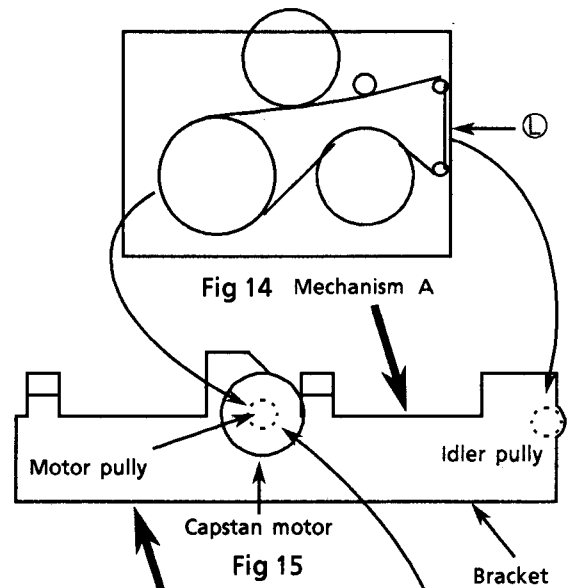
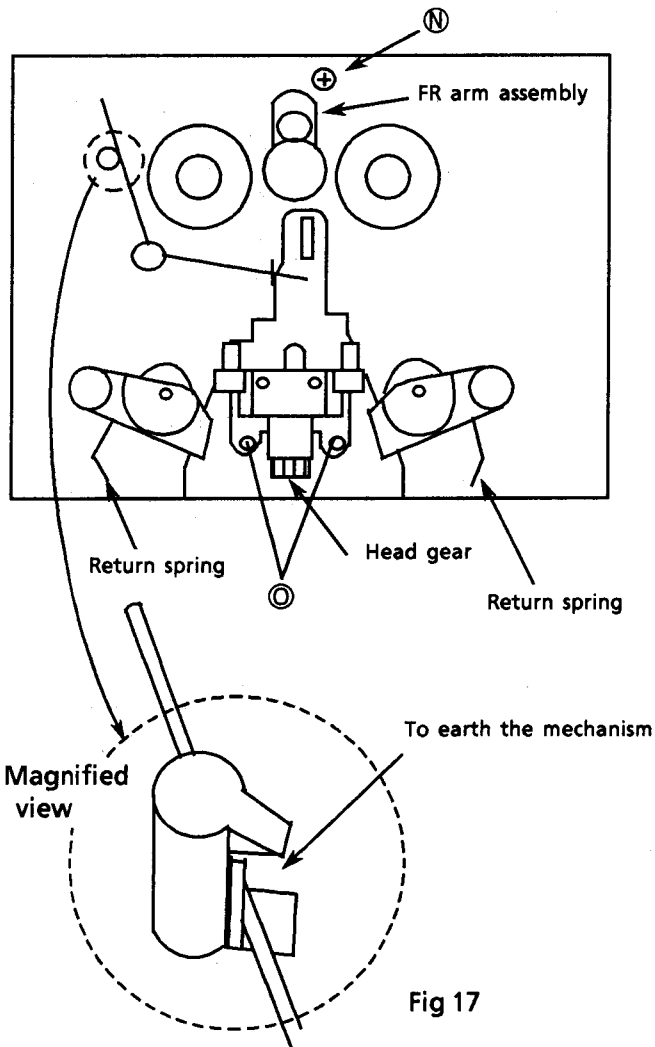
1. Remove the cassette mechanism assembly.
2. Remove the reel motor PCB.
3. Remove the screws ㊦ and the bracket (Fig 13).

※ To install the bracket

1. Install the belt of mechanism A as shown in fig 14.
2. Assemble the mechanism A and the bracket with the capstan motor.
3. Hang the belt of the mechanism A to the motor pulley using a tweezers and the like.
4. Hang the part ㊩ to the Idler pulley.
5. Install the mechanism B installed the belt as shown in fig 16 to the bracket which is assembled with the mechanism A.
6. Hang the part ㊭ to the motor pulley using a tweezers and the like.

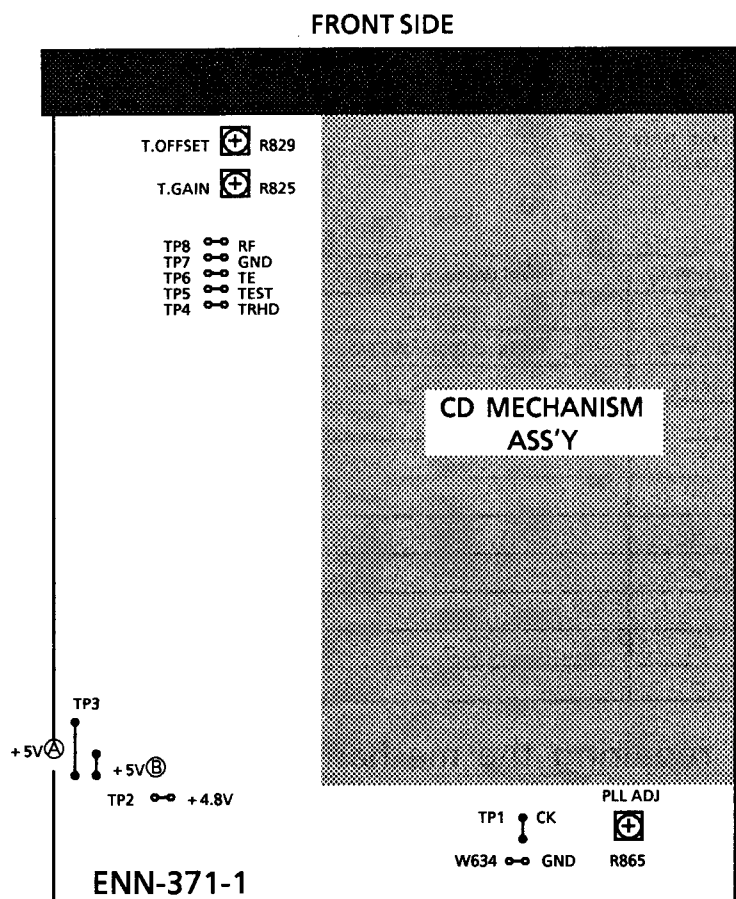
■ Cam switch PCB removal

1. Remove the fly wheel.
2. Remove the hooks fixing the PCB to remove the cam switch. When assembling the cam switch, install it so that the part ㊰ meets the part ㊱ (Fig 18).



Adjustment Procedures

■ CD section



* Use RX-MXS6BK when adjusting .

1. PLL free-running adjustment

1) Measuring instrument : Frequency counter

2) Adjusting procedure

- (1) Connect a frequency counter with TP1 (CK : W608) and W634 (GND) on the main PC board.
- (2) Adjust R865 for setting the frequency counter's value becomes $4.295 \pm 0.005\text{MHz}$.

2. Tracking gain adjustment

1) Measuring instruments : Oscilloscope, Normal disc

2) Adjusting procedure

- (1) Connect an oscilloscope with TP6 (TE) and TP7 (GND) on the main PC board.
- (2) Play a disc.
- (3) Short circuit TP5 (TEST) to TP7 (GND).
- (4) Adjust R825 for setting tracking error signal becomes $2.0\text{ V}_{p.p.}$.

3. Tracking offset adjustment

1) Measuring instruments : Oscilloscope, Normal disc

2) Adjusting procedure

- (1) Connect an oscilloscope with TP6 (TE) and TP7 (GND) on the main PC board.
 - (2) Play a disc.
 - (3) Short circuit TP5 (TEST) to TP7 (GND).
 - (4) Adjust R829 for setting the DC level of the tracking error (offset) becomes 0.
- Note : Adjust R829 for setting the waveform becomes symmetrical around the 0 level.

Adjustment Procedures (Cassette Deck)

1. Measuring instruments

Audio frequency signal generator (0dbS output at the 600 ohm output terminal from 50Hz to 20KHz)
 Electronic voltmeter
 Frequency counter
 Wow & Flutter meter
 Distortion Meter with band pass filter
 Attenuator (600 ohm impedance)
 A resistor with 600Ω

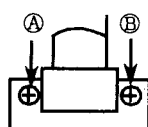
Standard Tape

0dbS = 0.775V

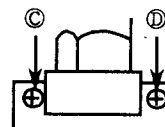
Tape No.	Frequency	Level (Wow & Fkutter)	Purpose
VTT-703L	10kHz	- 10dBs	Head azimuth , Frequency Response
VTT-712	3000Hz	0dBs 0.025%WRMS	Tape Speed , Wow & Flutter
VTT-724	1kHz	- 4dBs	Standard Level
TMT-6447	—	—	Blunk Skip
TMT-6247, TMT-6237	—	—	Music Scan
TMT-7046	—	—	Recording standard Normal : UR
AC-712	—	—	Recording standard METAL :MA
AC-513	—	—	Recording standard CrO ₂ :SA
TW-2111, TW-2121	—	—	Forward /reverse play torque measuring
TW-2231	—	—	Feed forward /rewind torque measuring
C-120 Tape	—	—	Comfirming the tape running

2. Adjustment and repairing the mechanism

Item	Adjustment method	Standard value	Remarks
Head azimuth	Deck A 1. Connect an electronic voltmeter to the DOLBY TP (figure 3) to playback VTT-703L. 2. Adjust screw ① so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed. 3. Adjust screw ② so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed. Deck B 4. Adjust screw ③ so that the indication of the voltmeter becomes maximum when PLAY (▶) is pressed. 5. Adjust screw ④ so that the indication of the voltmeter becomes maximum when PLAY (◀) is pressed. 6. After making the adjustment, apply screw lock to prevent screws ①, ②, ③ and ④ coming loose.	Maximum	1. Refer to figure 1. 2. When the specified characteristic cannot be obtained because of head wear, excessive magnetization, etc., replace the head assembly and adjust the head azimuth. Also, perform the electric adjustment. 3. When there is the difference of more than 3 ~ 4 dB between left and right output levels, replace the head assembly to avoid complaints.
Playback torque	1. Measure the torque in the playback mode by the torque meter.	26 ~ 62 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Fast forward torque	1. Measure the torque in the fast forward mode by the torque meter.	80 ~ 200 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Rewind torque	1. Measure the torque in the rewind mode by the torque meter.	80 ~ 200 g-cm	When the standard torque cannot be obtained, replace the FR arm assembly or motor.
Wow & flutter	1. Connect the wow & flutter meter to the DOLBY TP (figure 3) and play back VTT-712. 2. Its reading should be within 0.2% (WTD).	Less than 0.2%	As a complaint may occur if the wow & flutter fluctuates by 0.1% even though it is allowed in the standard, repairing is required.



Deck A



Deck B

Figure 1

3. Electrical Adjustments (Make the following adjustments after adjusting the head azimuth.)

In principle, the adjustments should be made in the following sequence.

Set the NR switch to OFF and the BEAT CUT switch to "1".

Adjustments marked with an asterisk (*) should always be made after the head is replaced

0dBs = 0.775V.

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Tape Speed	1. Connect a frequency counter to the DOLBY TP (figure 3) and play back VTT-712. 2. Adjust the semi-fixed resistor VR481 on ENJ-074-1.	VR481	3,000 Hz ± 10Hz	Connect a wow & flutter meter with a built-in frequency counter to the speaker terminals.
Standard level (Playback Level)	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). Play back VTT-724 (1 kHz : -4dBs) to adjust the semi-fixed resistors.	Deck A L: VR453 R: VR454 Deck B L: VR281 R: VR282	400mV	1) The playback level varies when the head is replaced so should be adjusted. Use an electronic voltmeter with an impedance of 100 kΩ or more.
Playback Frequency Response	1. Connect an electronic voltmeter to the DOLBY TP (figure 3). 2. Play VTT-703L (10kHz : -10dBs) and adjust semi-fixed resistors to obtain the standard values.	Deck A L: VR451 R: VR452 Deck B L: VR283 R: VR284	200mV	—
Recording Bias Frequency	1. Connect a frequency counter to the BIAS TP (figure 3), and perform a recording to adjust bias frequency.	L331	100 kHz ± 5 kHz	Set the BEAT CUT SWITCH to "1".
Record / Play Frequency Response (Bias current)	Supply 100Hz / 1kHz / 10kHz, 30mV signals to AUX terminal. Record them with the NR switch off. While playing back, adjust VR331 and VR332 so that the variation of output of 100Hz / 10kHz to the output of 1kHz satisfies the standard value.	L: VR331 R: VR332	0 ± 3 dB for 100Hz 0 ± 2dB for 10kHz	Refer to figure 2 below. 1) The recording and playback frequencies of a cassette deck are adjusted by adjusting the bias. 2) Perform the adjustment with normal tape and confirm that the values are within the range for metal tape.

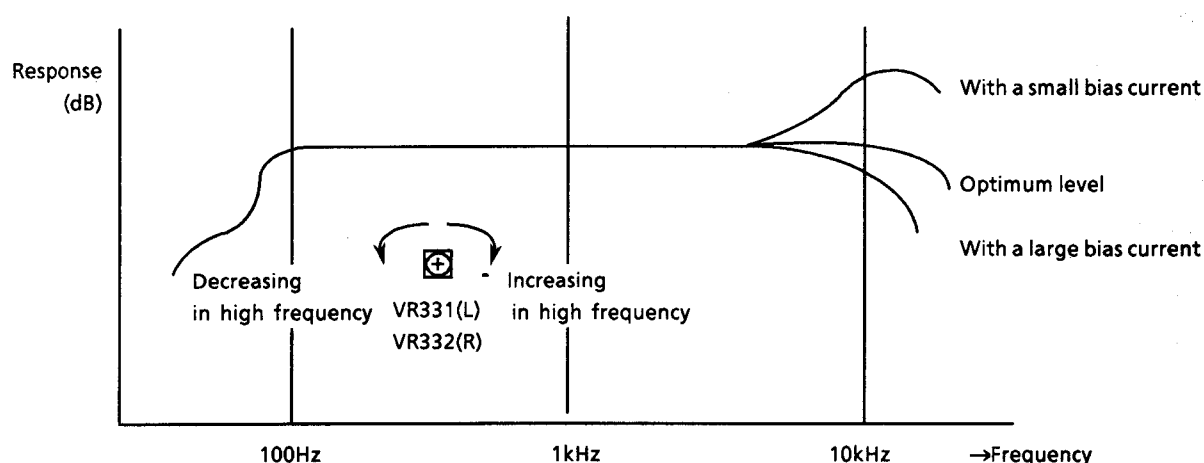


Figure 2

Item	Adjustment Method	Adjustment Location	Standard Value	Remarks
Record / Playback Sensitivity	1. Input a 1kHz (300mV) signal to AUX terminal and record it with a normal tape. 2. Connect an electronic voltmeter to the DOLBY TP (figure 3) to confirm the values. 3. If the values are not satisfied, adjust the semi-fixed resistors and record the signal again to confirm the values.	L : VR311 R : VR312	400mV	Adjust with normal tape and make sure that the left / right level difference is 1.0dB or less
Recording / playback distortion	1) Input a 1 kHz (300mV) to AUX terminal and record it. 2) Play it back and check the speaker out with a distortion meter to make sure it is within the criterion.		less than 3% (Normal/ CrO ₂)	Perform after the record / play frequency response and recording / playback sensitivity adjustments.
Recording / playback S/N ratio	1) Input a 1 kHz (300mV) signal to AUX terminal and record it. While recording, remove the input and record without the signal. 2) Connect a electronic voltmeter to the speaker terminals to measure the output levels. 3) Confirm that the output level ratio between the signals with a 1kHz and no signal is more than 40dB.		more than 40 dB (Normal/ CrO ₂)	
Erase ratio check	1. Record a music source using the Metal tape. 2. Rewind and erase the recorded section. 3. Comfirm nothing can be heard.	—	—	—
Music Scan	1. Make sure not to work the music scanning operation at the start of tape wind. 2. Make sure to work the music scanning operation at the end of tape wind.	—	—	—

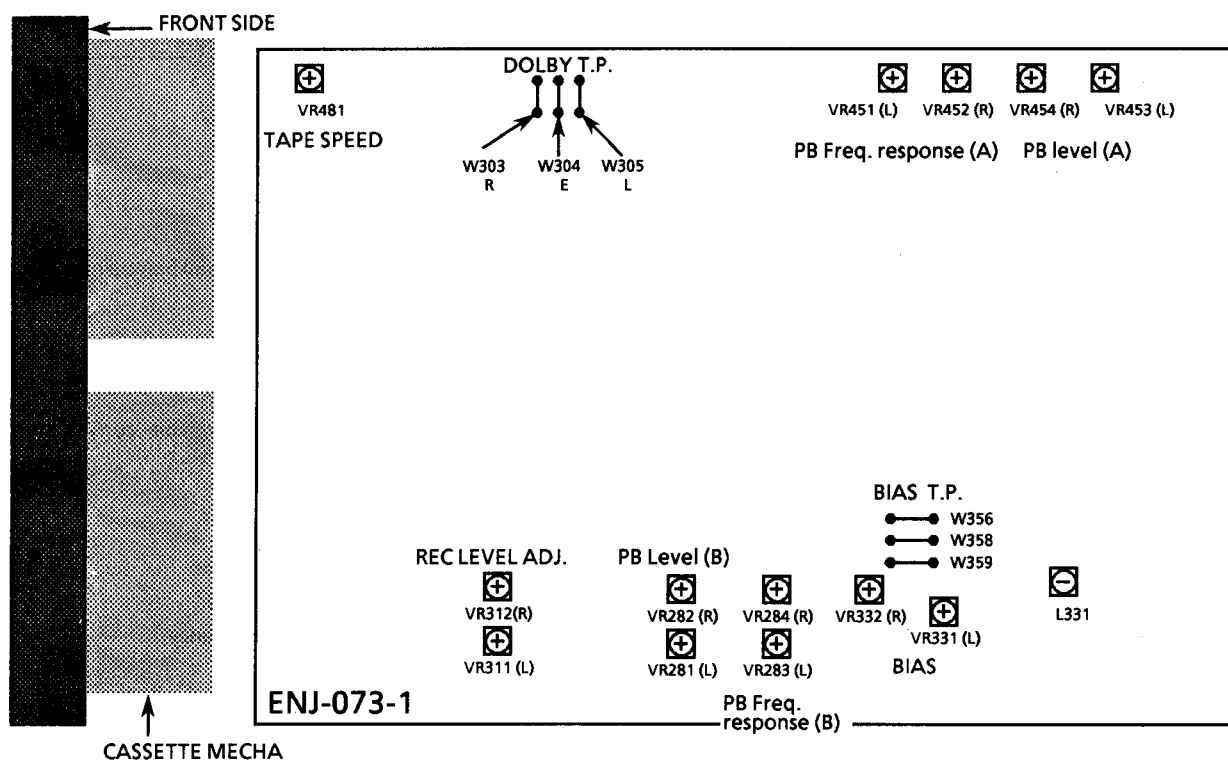


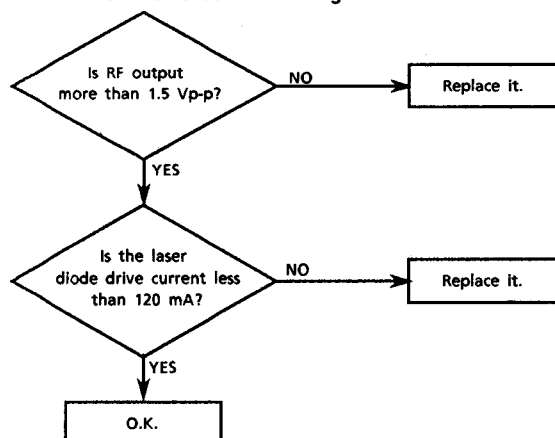
Figure 3

Maintenance of Laser Pickup

1. Life of the laser diode

When the life of the laser diode has expired, the following symptoms will appear.

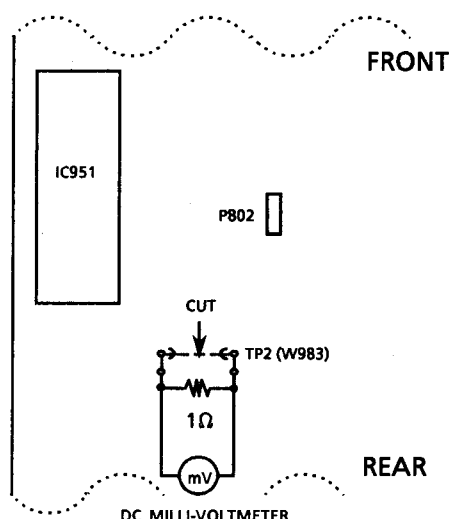
- (1) The level of RF output (EFM output: amplitude of eye pattern) will be low.
- (2) The drive current required by the laser diode be increased. In such a case, check the life of the laser diode following the flowchart below



2. Measurement of laser diode drive current

Replace the jump wire TP2(W983) shown below with the resistor (1Ω).

Measure the voltage across the resistor with a milli-voltmeter. When the voltage is more than 180mV, it shows that the life of the laser diode has expired.



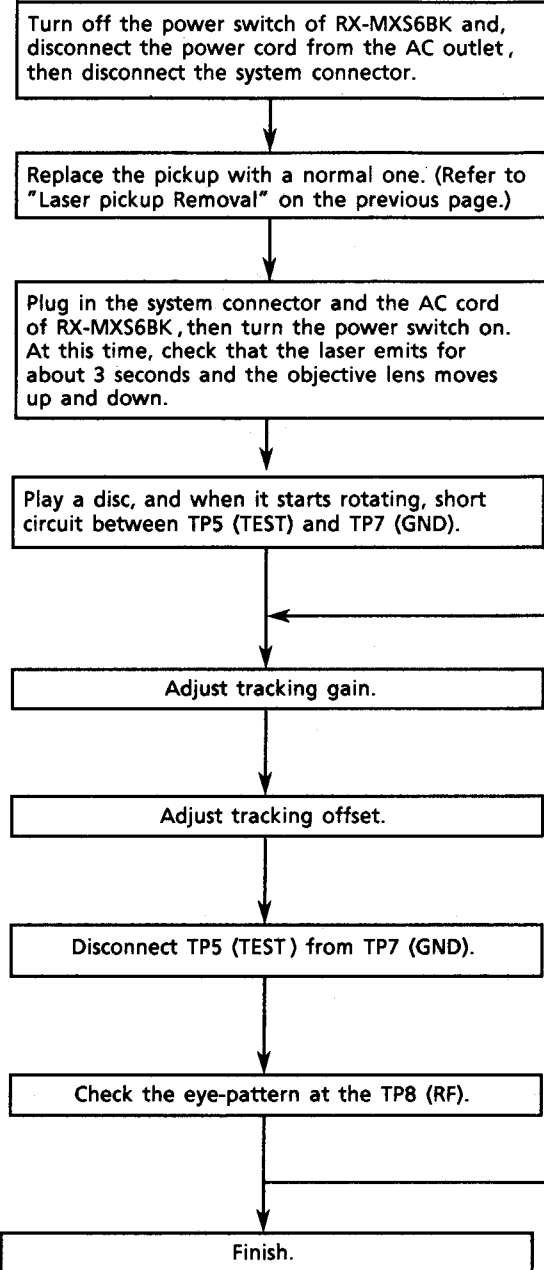
3. Semi-fixed resistor on the APC PC board

The semi-fixed resistor on the APC printed circuit board which is attached to the pickup is used to adjust the laser power. Since this adjustment should be performed to match the characteristics of the whole optical block, do not touch the semi-fixed resistor.

If the laser power is lower than the specified value, the laser diode is almost worn out, and the laser pickup should be replaced.

If the semi-fixed resistor is adjusted while the pickup is functioning normally, the laser pickup may be damaged due to excessive current.

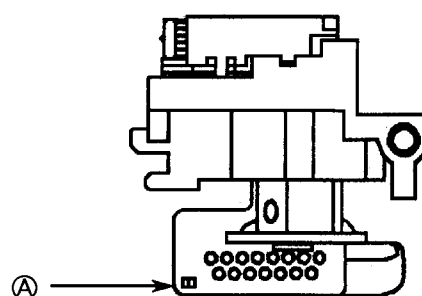
Replacement of Laser Pickup



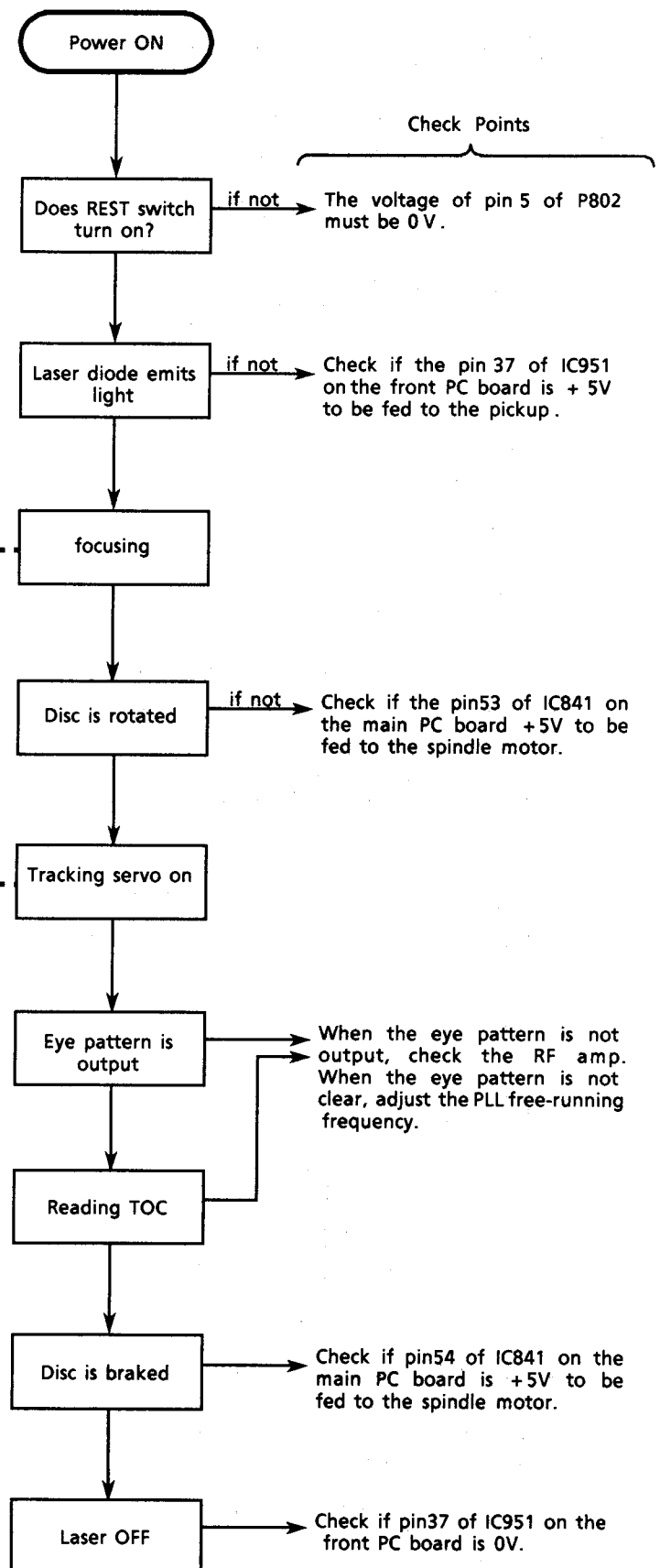
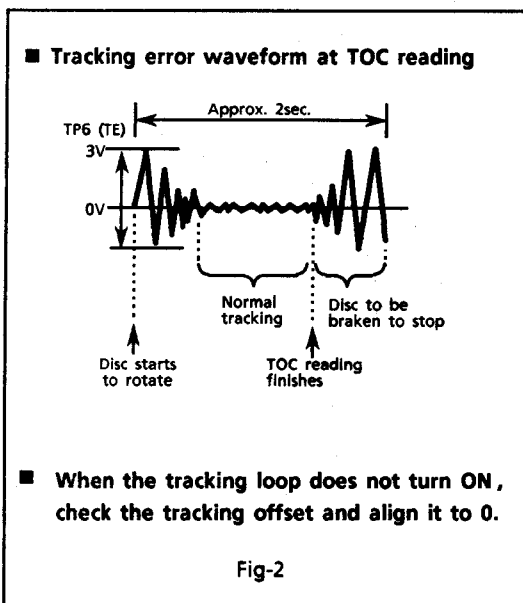
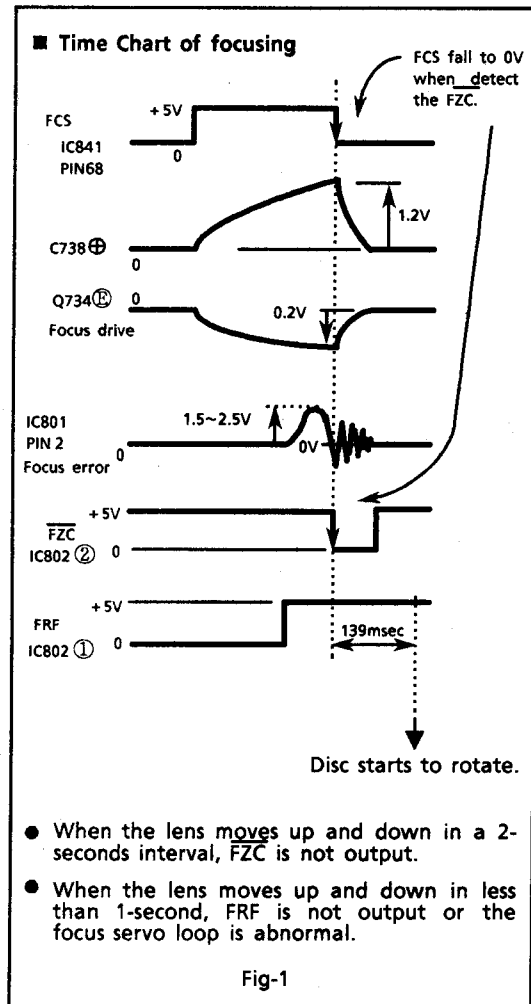
Note : Since one adjustment may affect other settings, repeat these adjustments a few times.

Before installing the pickup

Unsolder the part ①, which is used for countermeasure for static electricity.

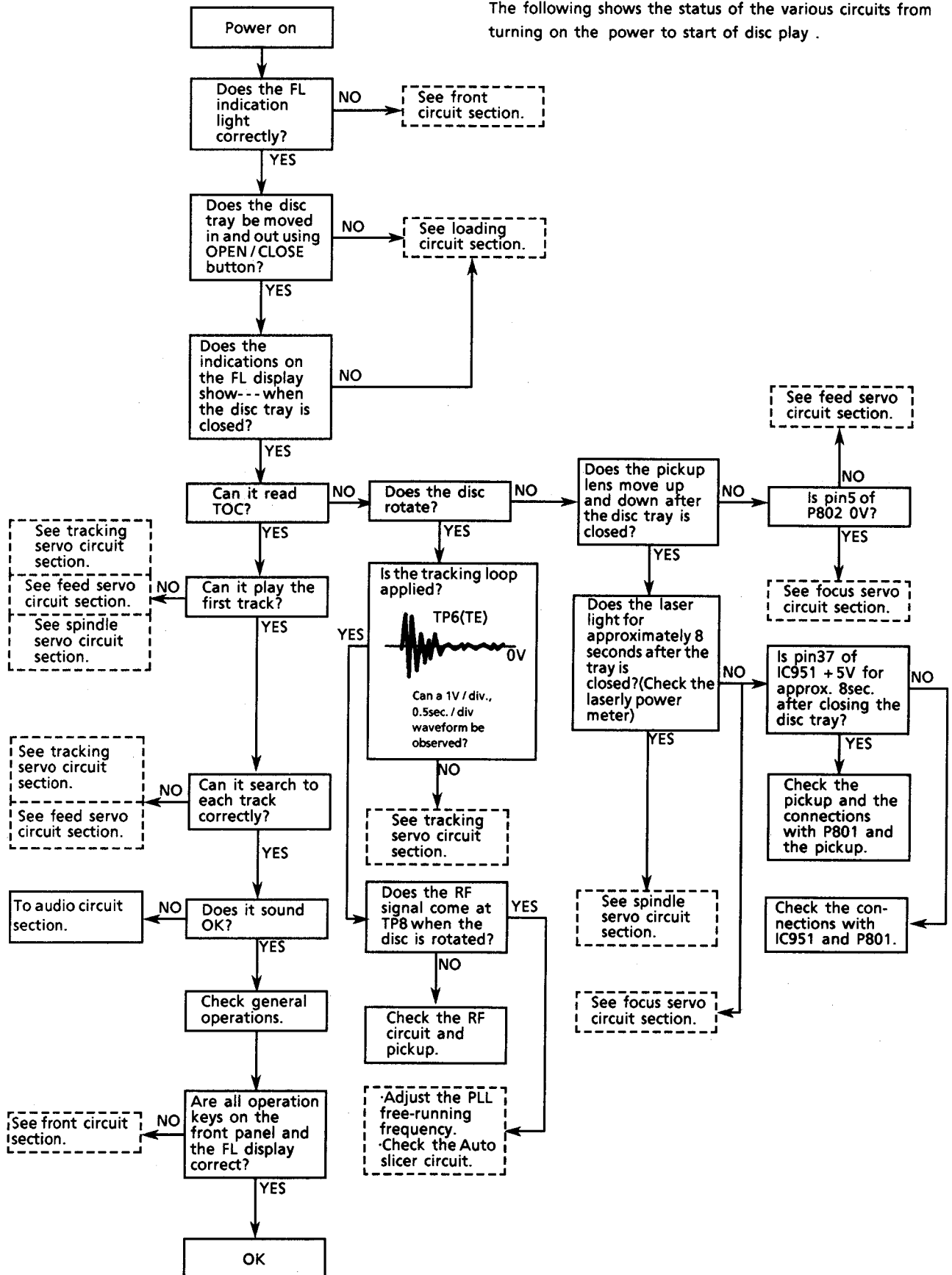


Flow of Functional Operation Until TOC is Read

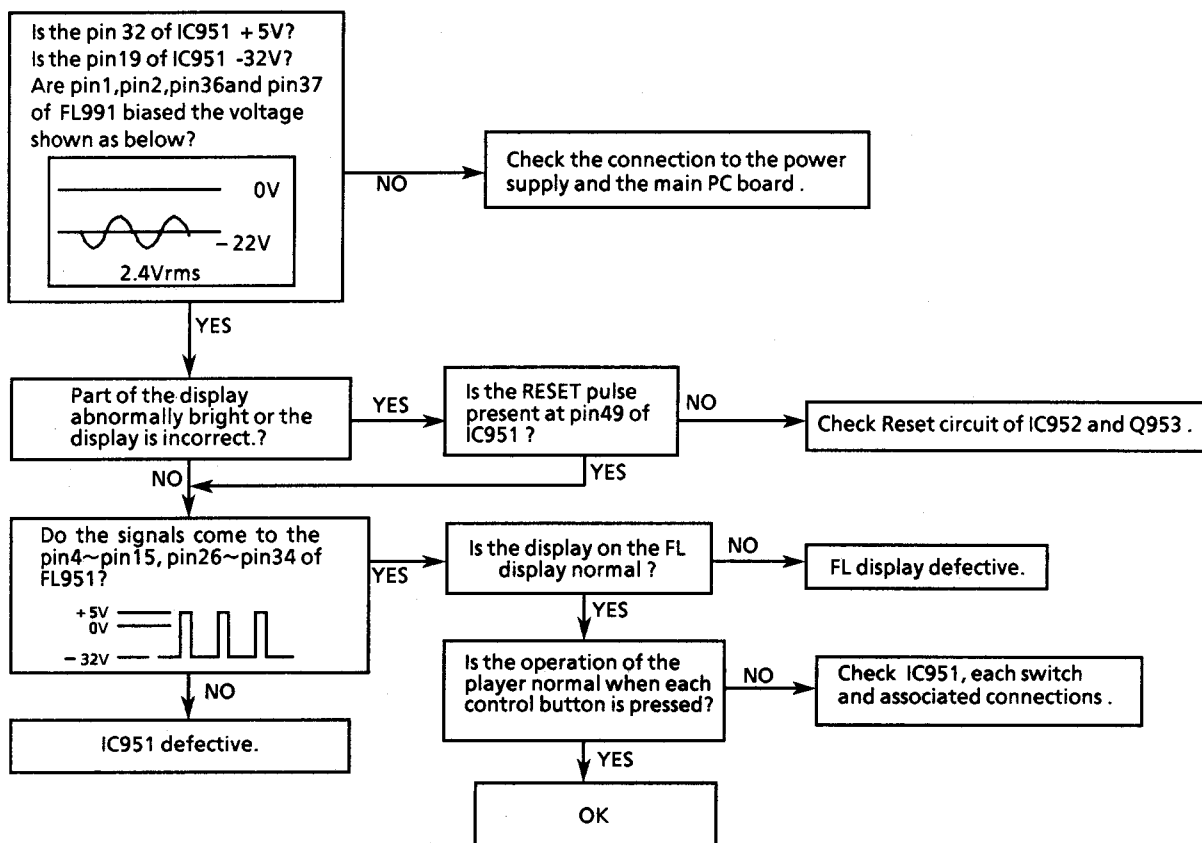


Troubleshooting

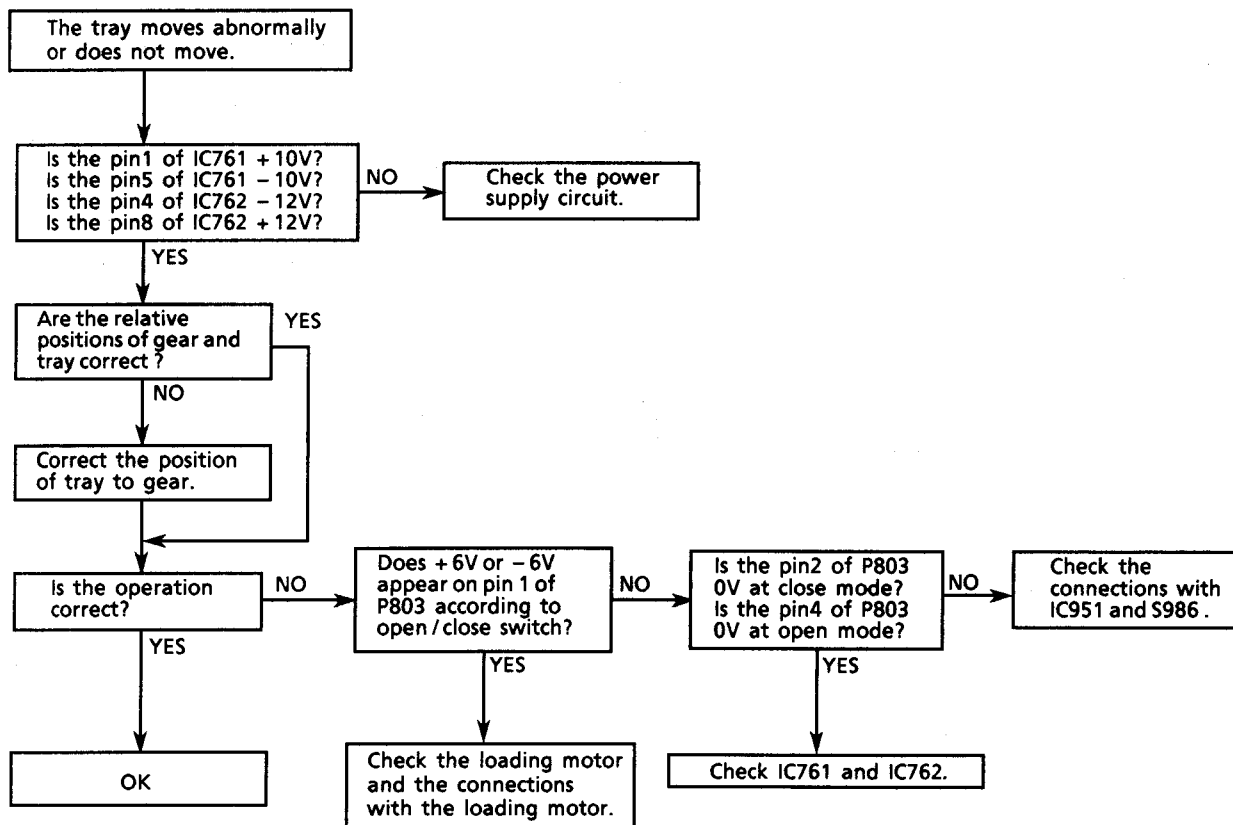
The following shows the status of the various circuits from turning on the power to start of disc play.



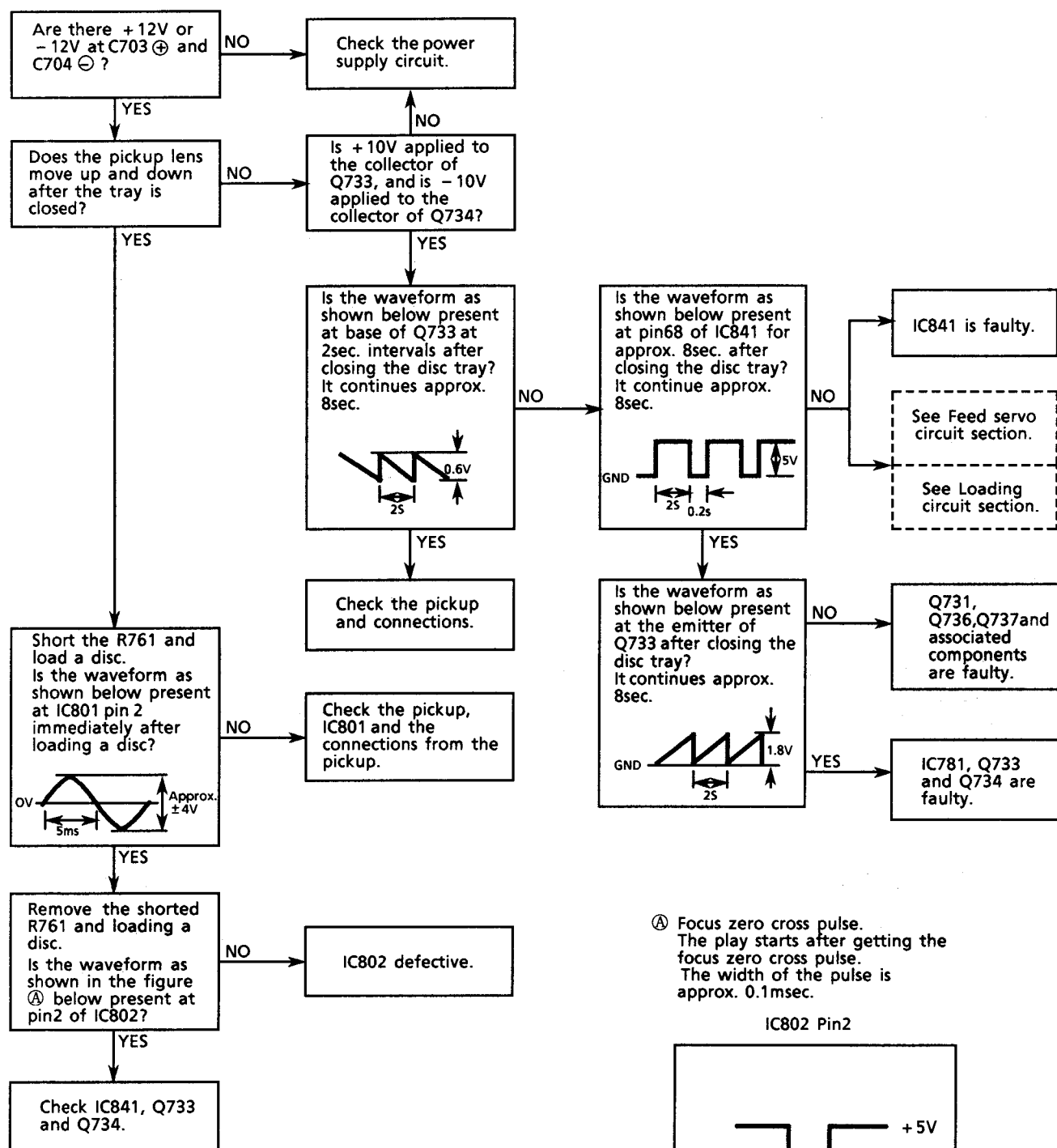
Front circuit Section



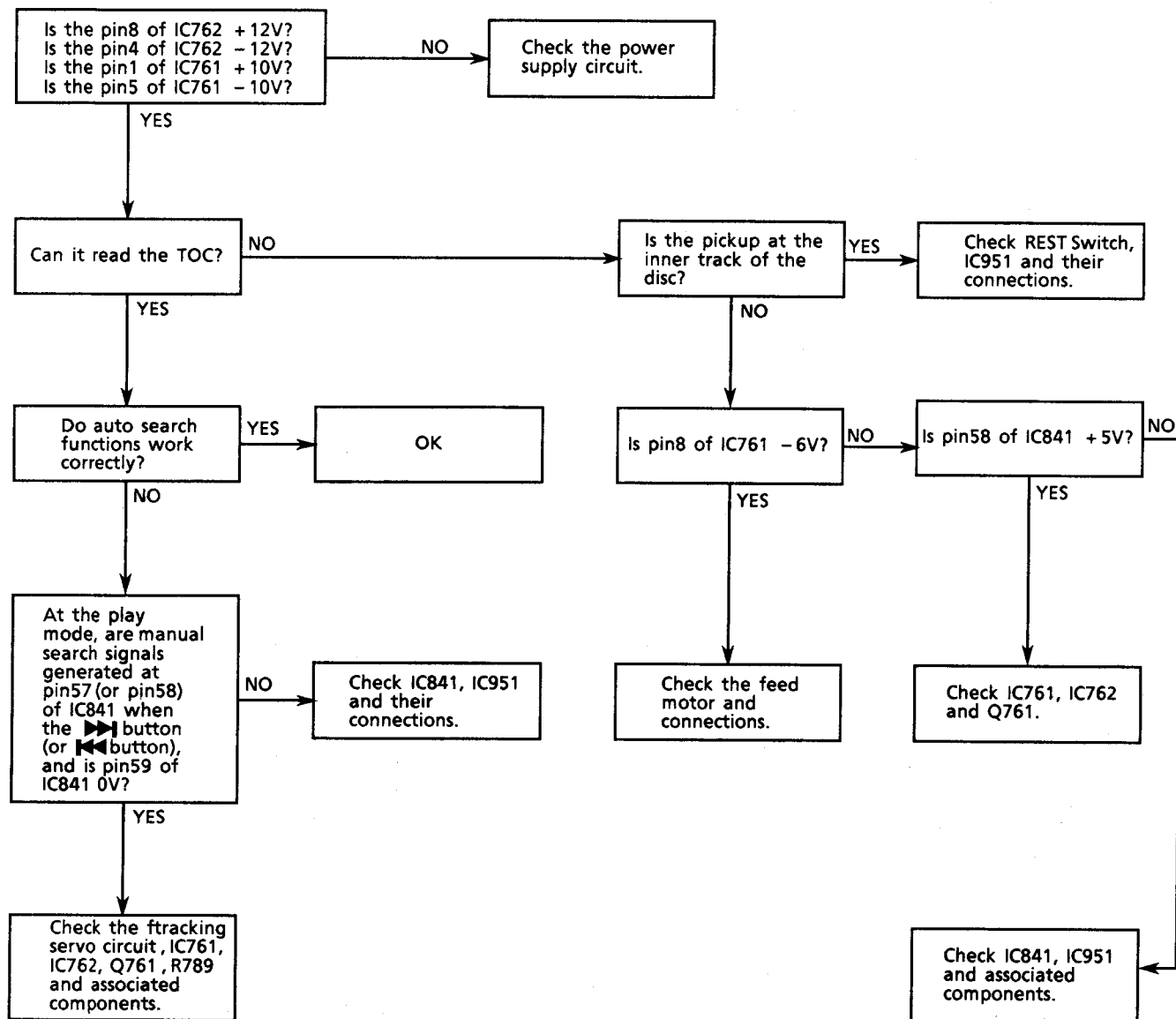
Loading circuit section



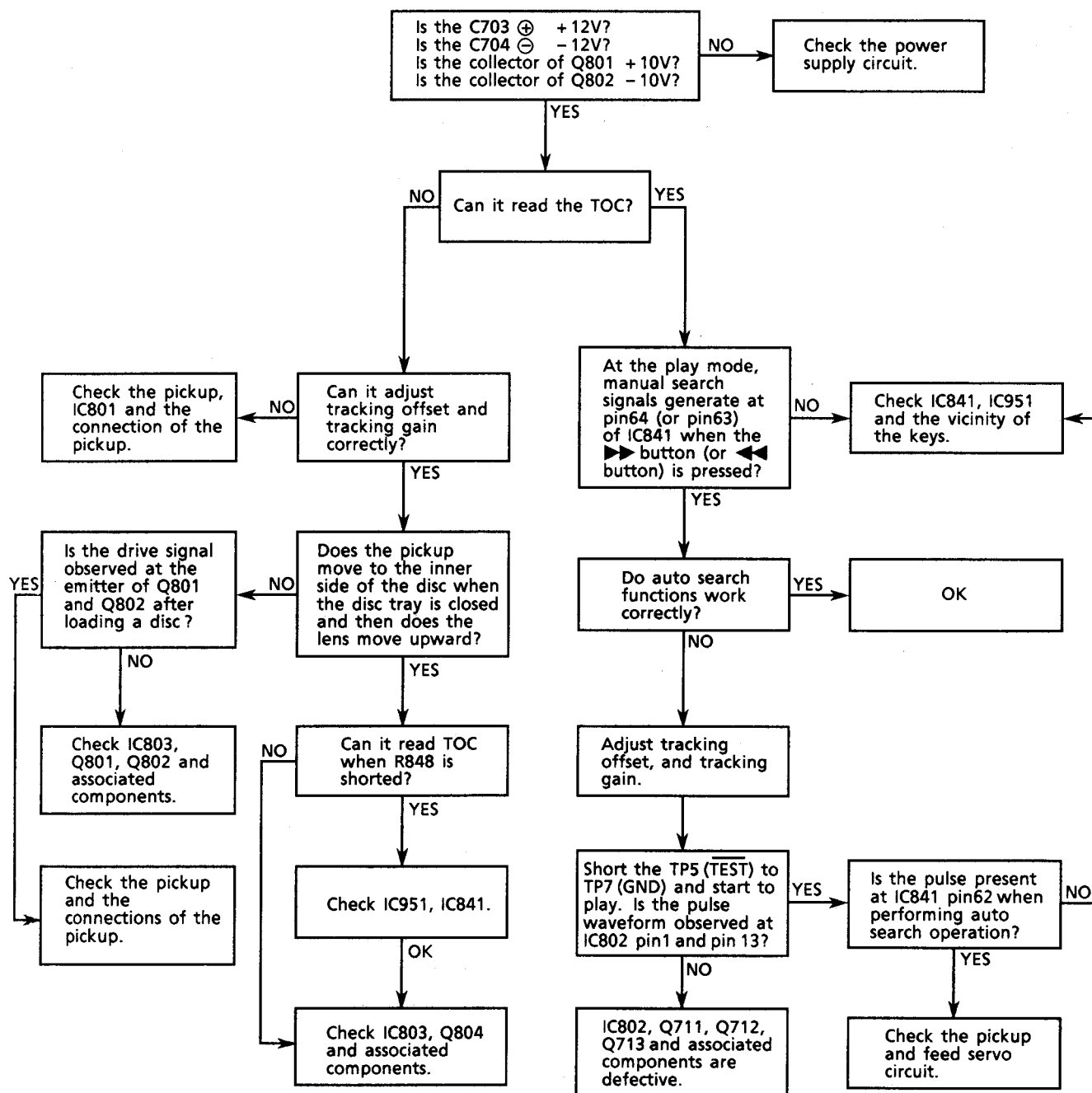
Focus circuit section



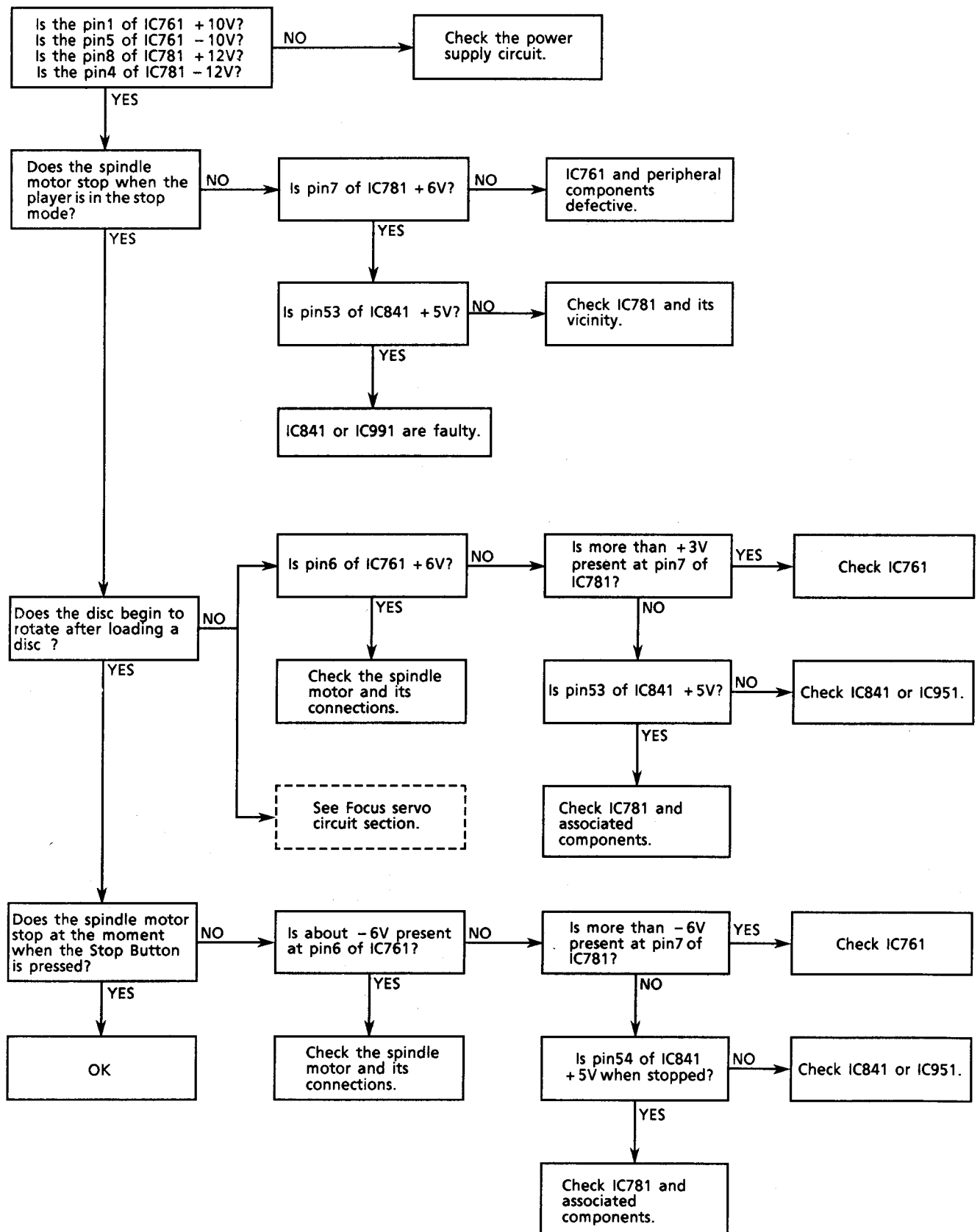
Feed circuit section



Tracking circuit section



Spindle circuit section

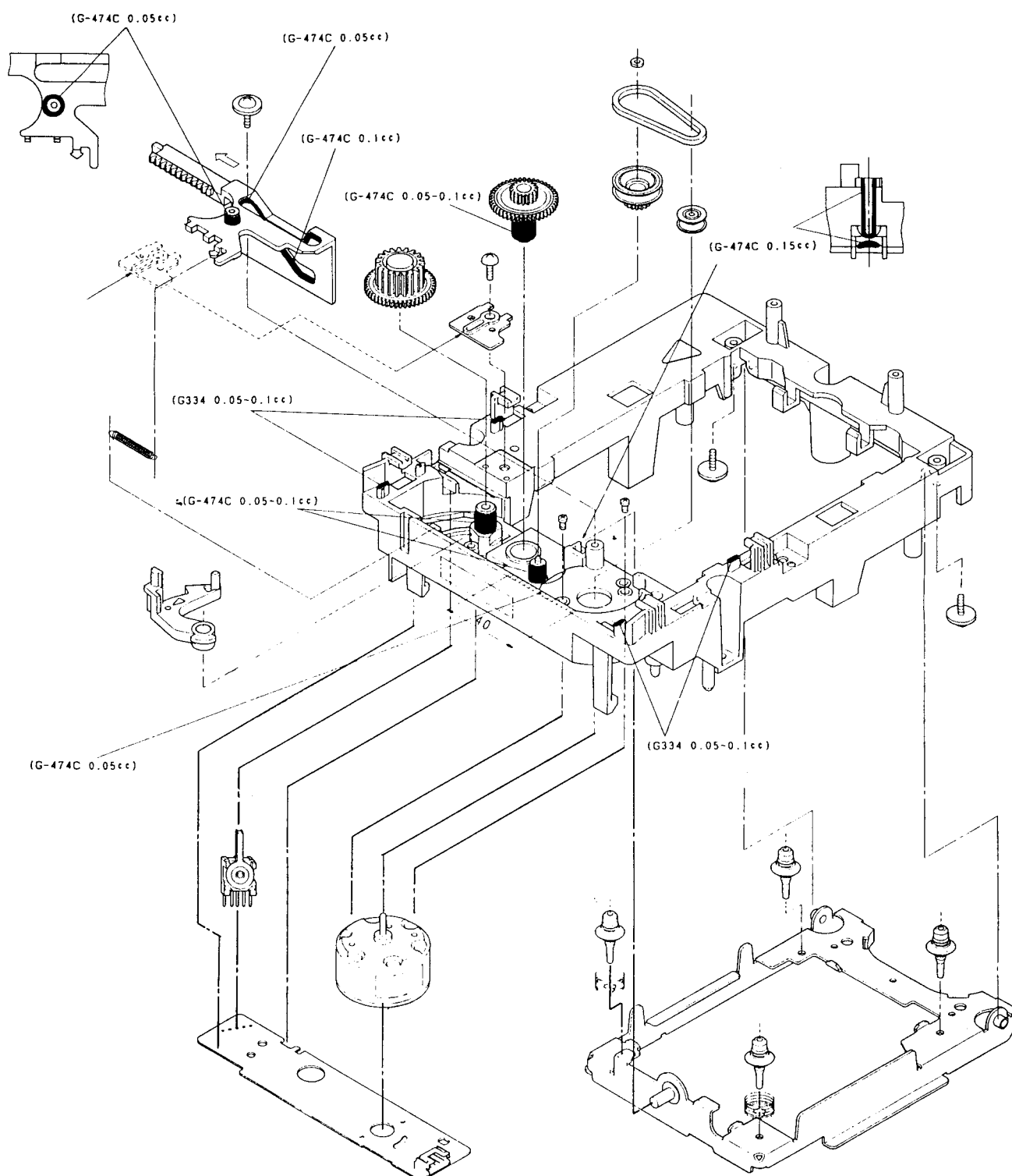


Exploded View of Assemblies and Application Points for Grease

Grease used

■ G-334 (Shin-Etsu Chemical Co., Ltd.)

■ G-474C (Kanto Chemical Co., Ltd.)

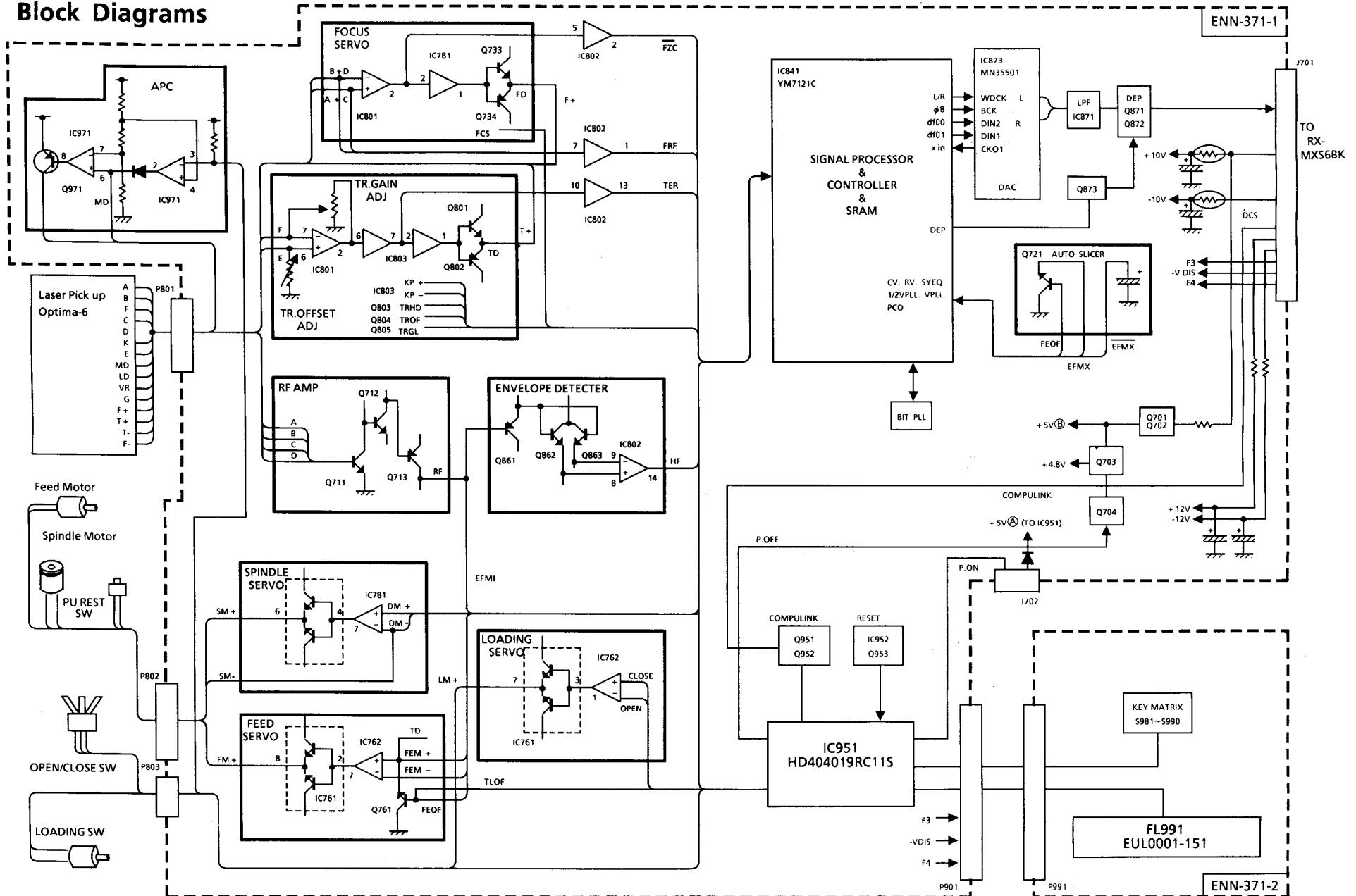


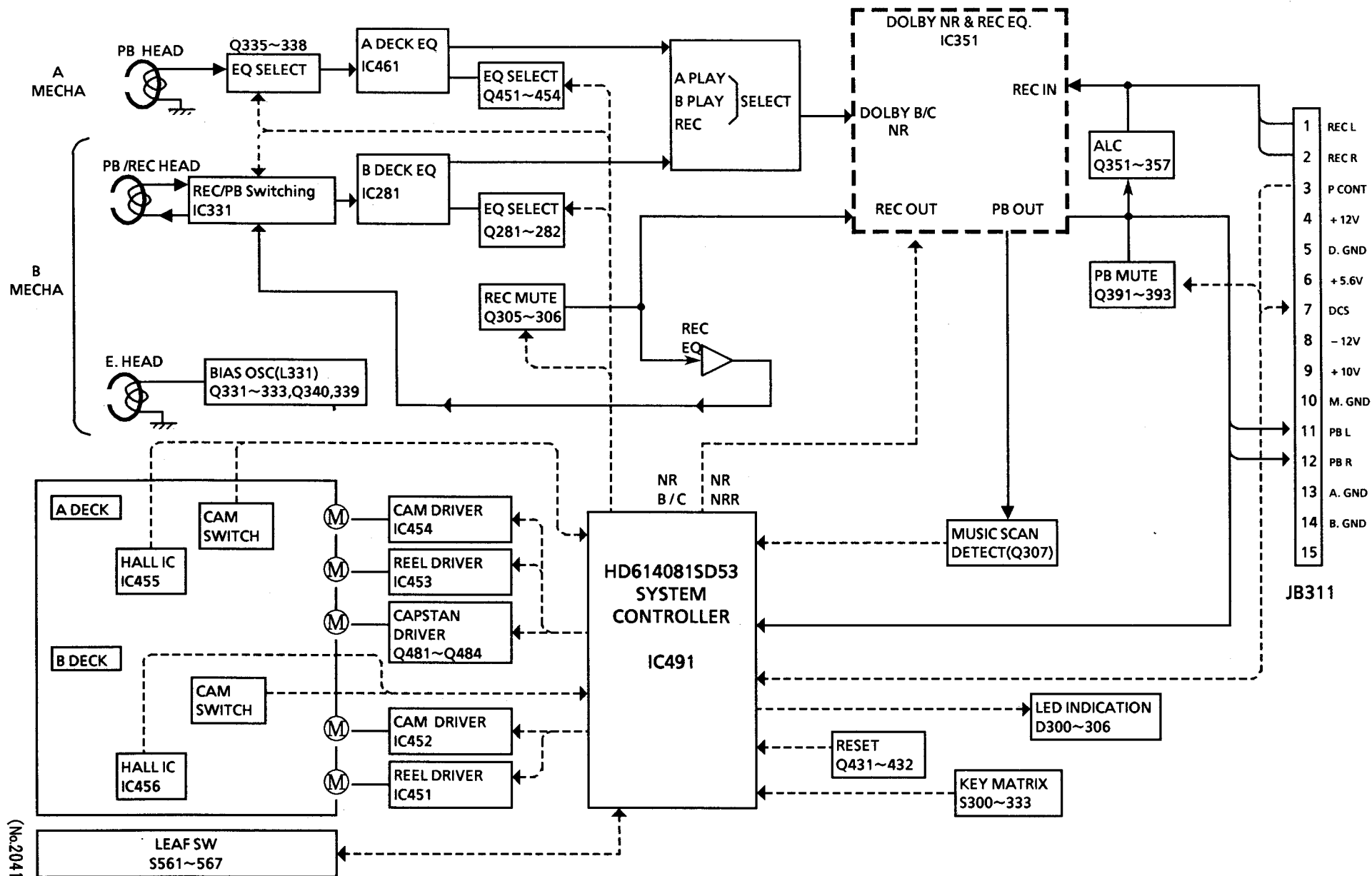
Grease part numbers

G-334: EBS0006-009B

G-474C: EBS0006-019B

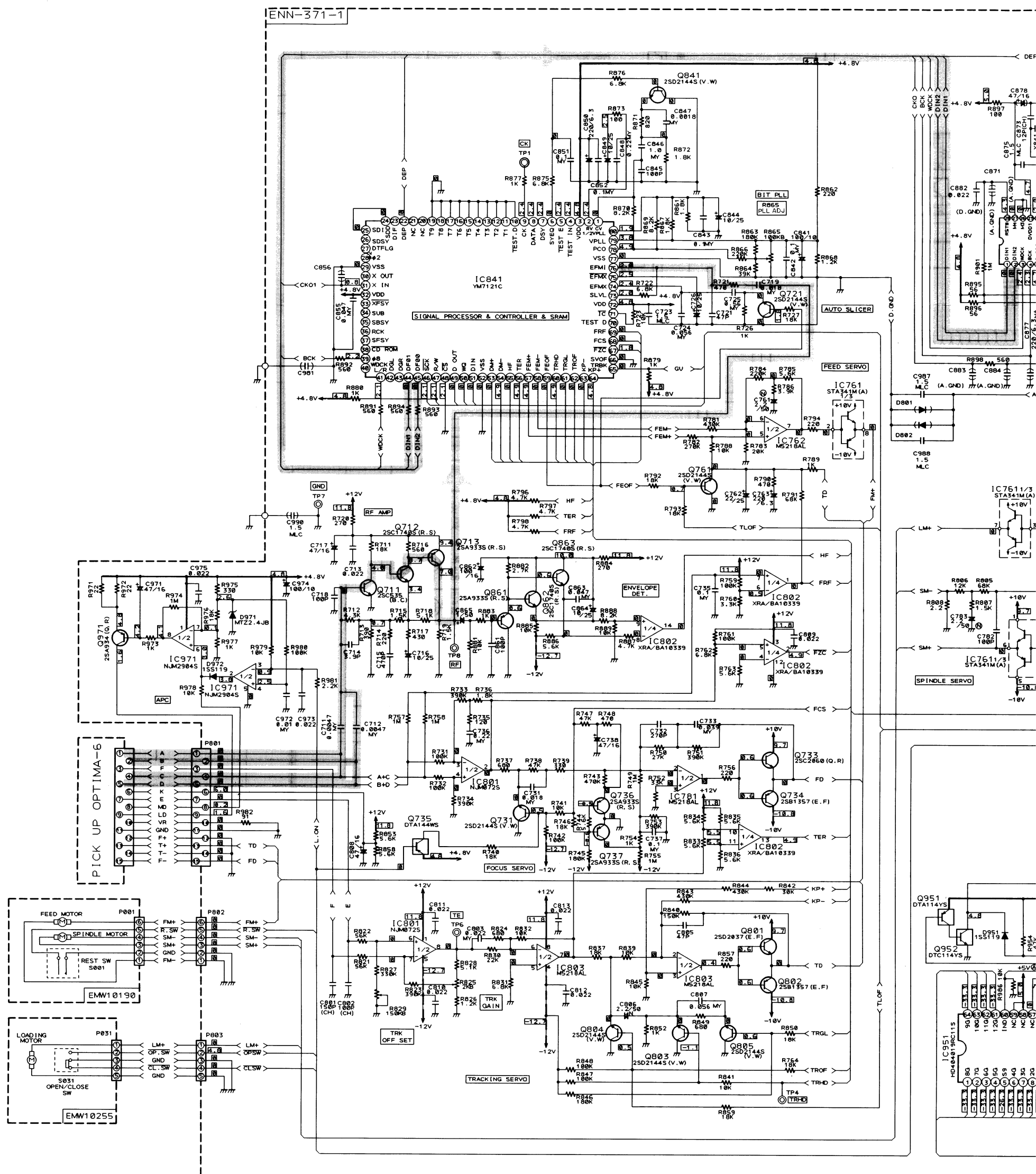
Block Diagrams





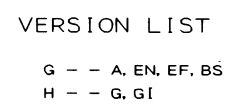
Schematic Diagrams

(1) CD Section

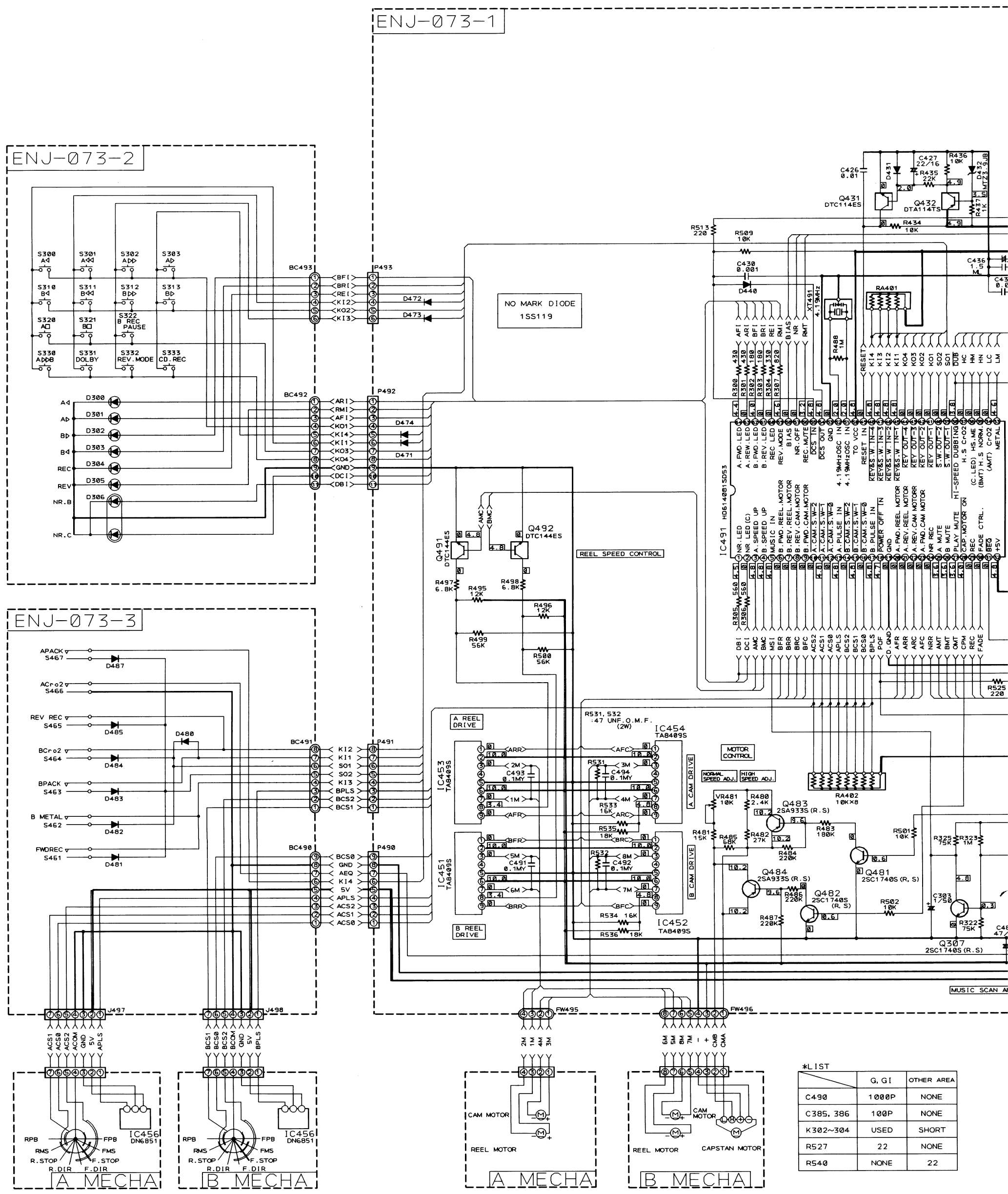


How to Use Schematic Diagrams

1. — indicates the + B line.
2. - - - - indicates the - B line.
3. ■ indicates signal path.
4. ~ ~ ~ ~ Graphics signal path.
5. Parts marked with △ and those in the shaded area ■ are parts for safety. Be sure to use one with the specified part number.
6. This is the standard circuit diagram. The circuits and circuit constants are subject to change for improvement without notice.



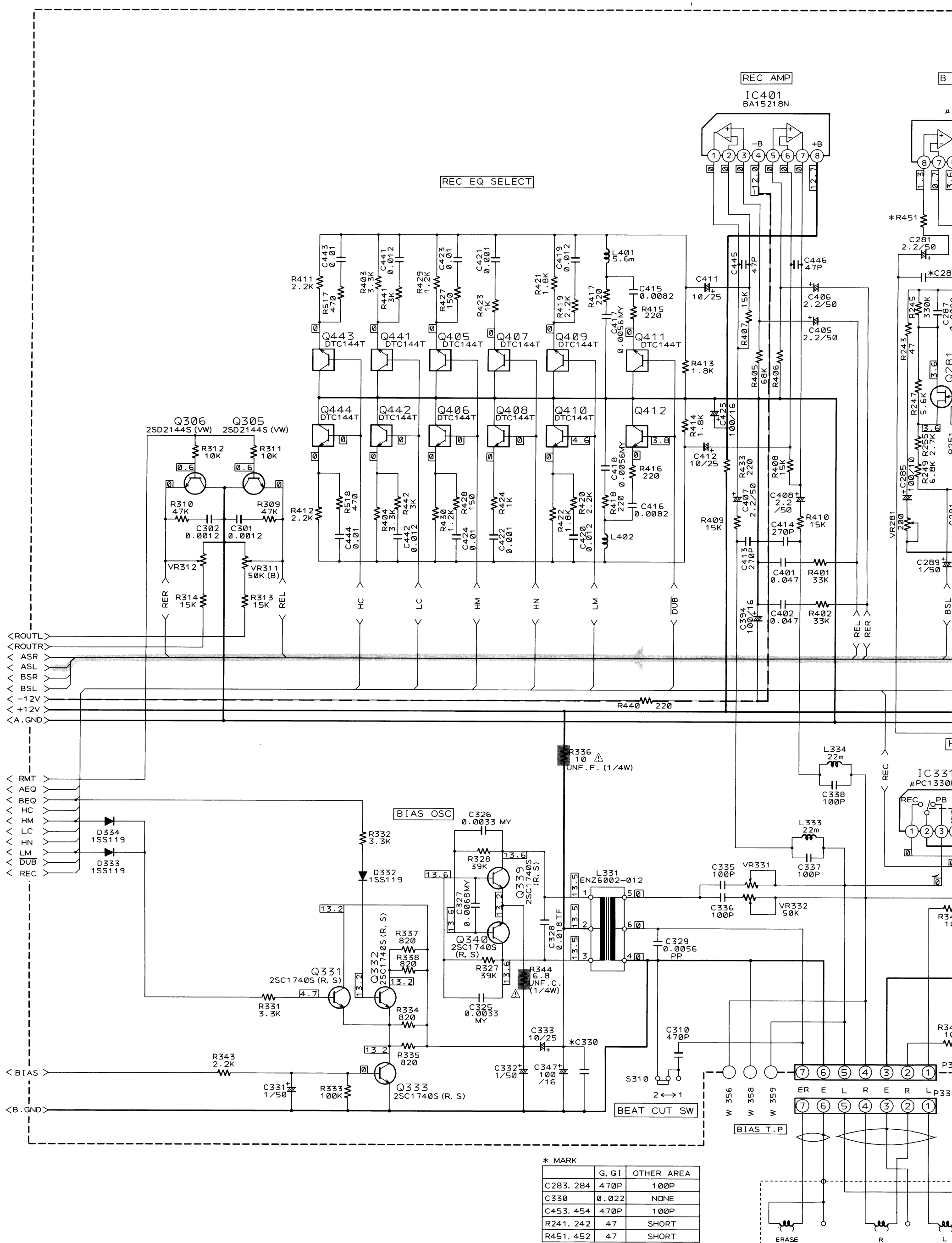
(2) Cassette Deck Control Section

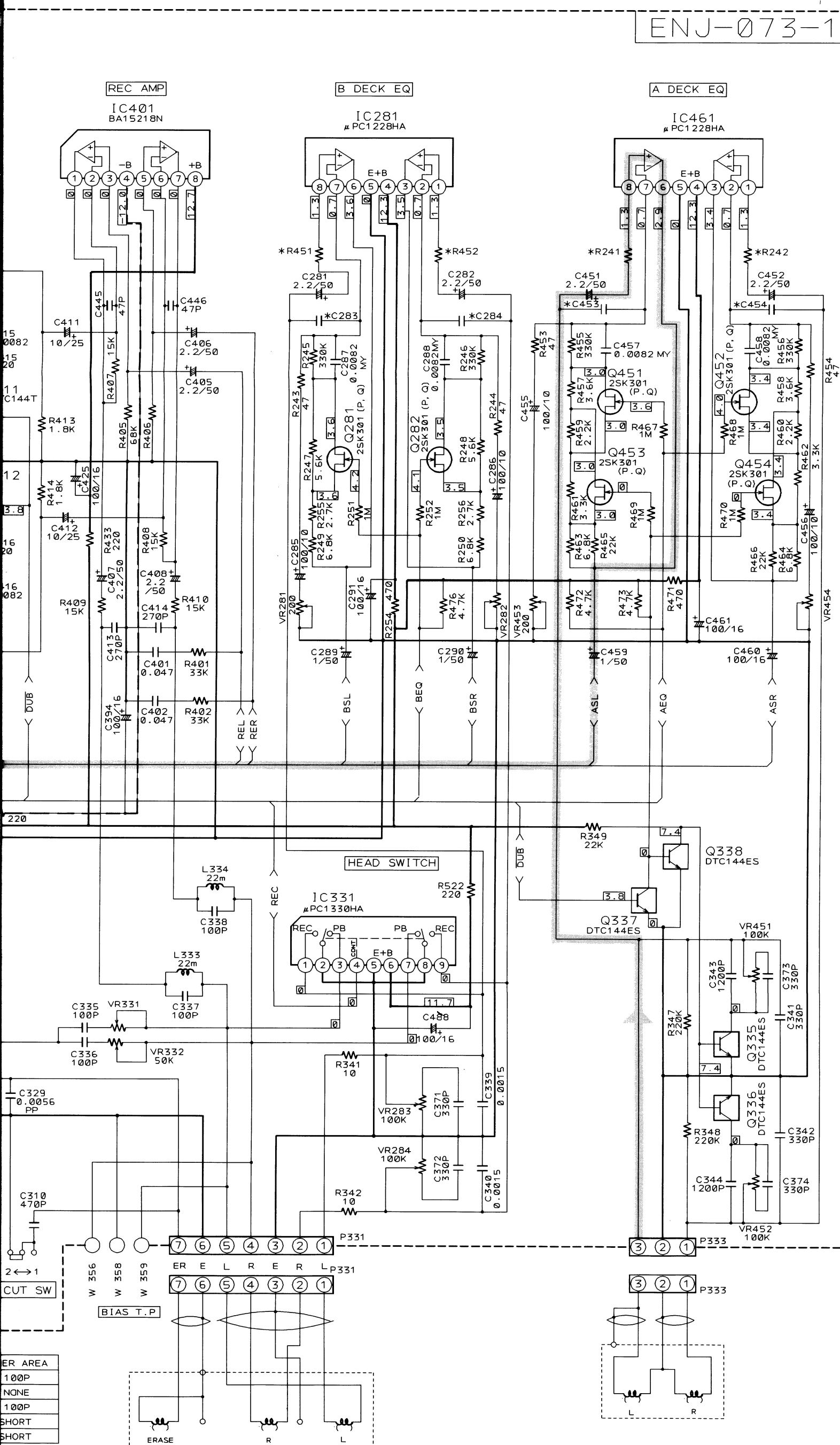




TO RX-MXS6

(3) Cassette Deck Section









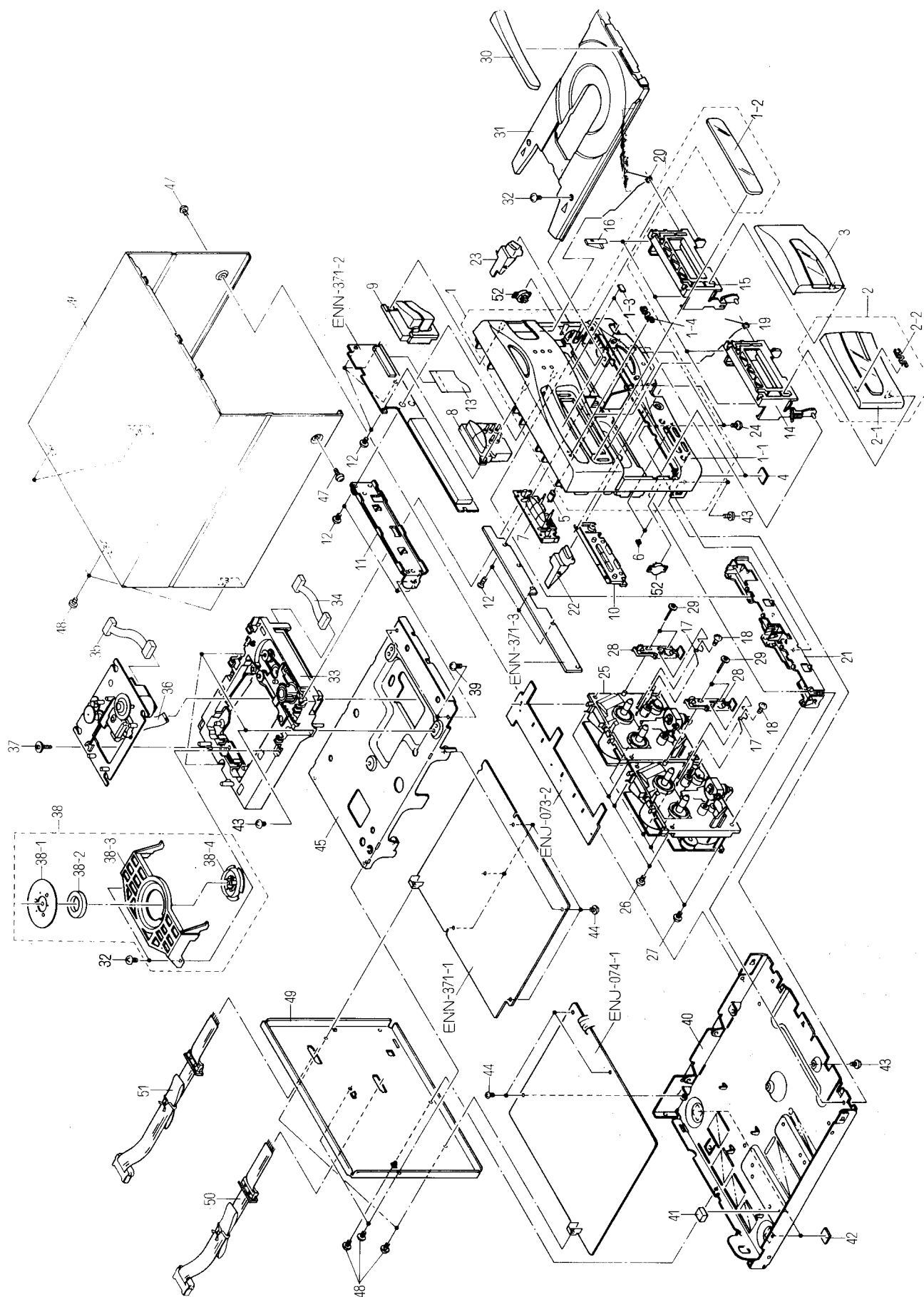
PARTS LIST

Note : All printed circuit boards and its assemblies are not available as service parts.

Contents

General Exploded View and Parts List	2 - 2
Cassette Mechanism Ass'y and Parts List	2 - 5
CD Mechanism Ass'y and Parts List	2 - 7
Printed Circuit Board Ass'y and Parts List	2 - 10
■ ENN-371 ☐ CD PC Board Ass'y	2 - 10
■ ENJ-073 ☐ Deck PC Board Ass'y	2 - 14

General Exploded View and Parts List



■ Parts List

△	Item	Part Number	Part Name	Q'ty	Description	Area
	1	EFP-XTMXS6BKE(S	FRONT PANEL ASSY	1		
	1-1	E102686-002SM	FRONT PANEL	1		
	1-2	E69777-003	REFLECTION PLATE	2		
	1-3	E308430-001SM	WINDOW SCREEN	1		
	1-4	E406971-221SM	JVC MARK	1		
	2	E207803-004SA	CASSETTE LID ASSY	1		
	2-1	E207803-004SM	CASSETTE LID	1		
	2-2	E406971-221SM	JVC MARK	1		
	3	E207806-002SM	CASSETTE LID ASSY	1		
	4	E75896-001	SPACER	2	FOOT (F)	
	5	E407446-001SS	INDICATOR LENS	1	REC AUSE	
	6	E407445-002SS	INDICATOR LENS	2	DOLBY	
	7	E207545-003SS	PUSH BUTTON ASSY	1	DECK B	
	8	E207796-001SS	PUSH BUTTON ASSY	1	CD PLAY	
	9	E207859-001SM	PUSH BUTTON ASSY	1	OPEN/CLOSE,SEARCH	
	10	E308151-002SS	PUSH BUTTON ASSY	1	DECK A	
	11	E308437-003SM	STAY BRACKET	1		
	12	SDSF2608Z	SCREW	10		
	13	EWR633K-14PPJ3	FLAT WIRE	1		
	14	E207560-002SS	HOLDER	1	DECK A	
	15	E207561-002SS	HOLDER	1	DECK B	
	16	E406713-221SS	CASSETTE SPRING	4		
	17	E407304-001SM	SPRING	2		
	18	GBSF3006Z	SCREW	2		
	19	E407447-004SM	EJECT SPRING	2	DECK A	
	20	E407447-005SM	EJECT SPRING	2	DECK B	
	21	E207567-001SS	HOLDER BRACKET	1		
	22	E308160-001SS	EJECT BUTTON	1	DECK A	
	23	E308161-001SS	EJECT BUTTON	1	DECK B	
	24	SBST3006M	SCREW	4		
	25	-----	CASSETTE MACHANISM ASSY	1	See page 2-7	
	26	SBSF3010C	SCREW	4		
	27	SBST3008C	SCREW	4		
	28	E308162-002SS	EJECT LEVER	2		
	29	E407214-001	SPECIAL SCREW	4		
	30	E207534-002SS	CD FITTING	1		
	31	E102358-332SS	CD TRAY	1		
	32	SBSF3008M	SCREW	3		
	33	-----	CD MECHANISM ASSY	1	See page 2-5	
	34	EWVS265-B410	SOCKET WIRE	1	5PIN	
	35	EWVS266-B412	SOCKET WIRE	1	6PIN	
	36	EWR115M-11BB	FLAT WIRE	1	15PIN	
	37	E406293-002	SPECIAL SCREW	1		
	38	E306837-005	CLAMPER BASE ASSY	1		
	38-1	E306836-223SS	YOKE PLATE	1		
	38-2	E74897-002	MAGNET	1		
	38-3	E26756-222SS	CLAMPER BASE	1		
	38-4	E306835-221SS	CD CLAMPER	1		
	39	SBST3006Z	SCREW	2		
	40	E102616-223	CHASSIS BASE	1		

△	Item	Part Number	Part Name	Q'ty	Description	Area
	41	EXO008008R40S	SPACER	1		
	42	E75896-006	FELT SPACER	2		
	43	SBST3008Z	SCREW	6		
	44	SBSG3008N	SCREW	8		
	45	E102688-004SM	CHASSIS BASE	1		
	46	E207787-004SM	METAL COVER	1		
	47	SDSG3006M	SCREW	2		
	48	E73273-003	SPECIAL SCREW	9		
	49	E207809-007SM	REAR PANEL	1		A
		E207809-008SM	REAR PANEL	1		Except A
	-	E70891-001	RATING LABEL	1		
	50	EWPP907-013	PLUG CORD ASSY	1		
	51	EWPP907-015	FLAT WIRE ASSY	1		
	52	E304434-002	DAMPER ASSY	2		
	-	E61029-005	NUMBER LABEL	1		
	-	E406507-001	CAUTION LABEL	1		

△ : Safety Parts

The Marks for Designated Areas

A Australia

EN Scandinavia

No mark indicates all area

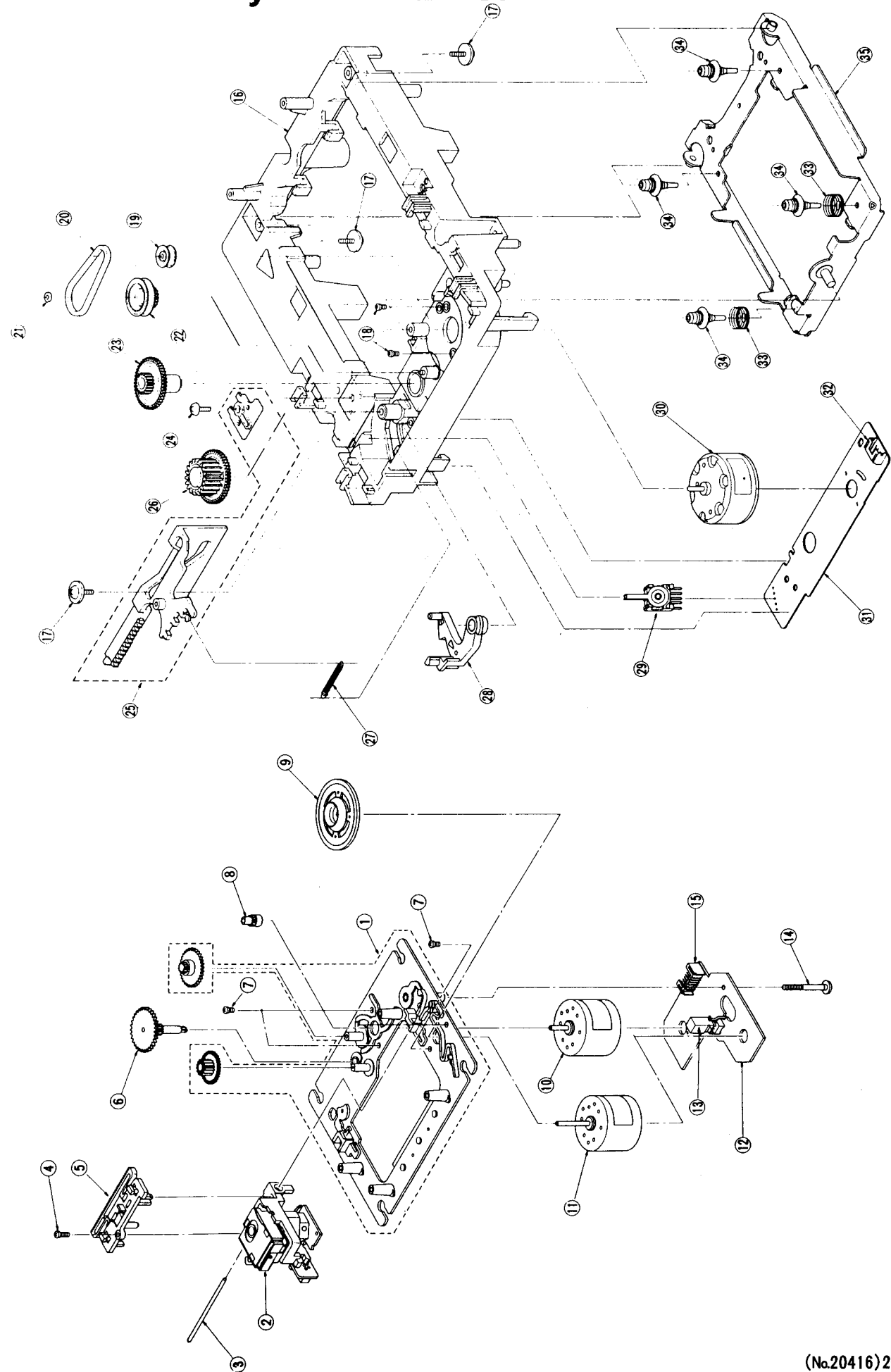
BS the U.K.

G Germany

EF Continental Europe

GI Italy

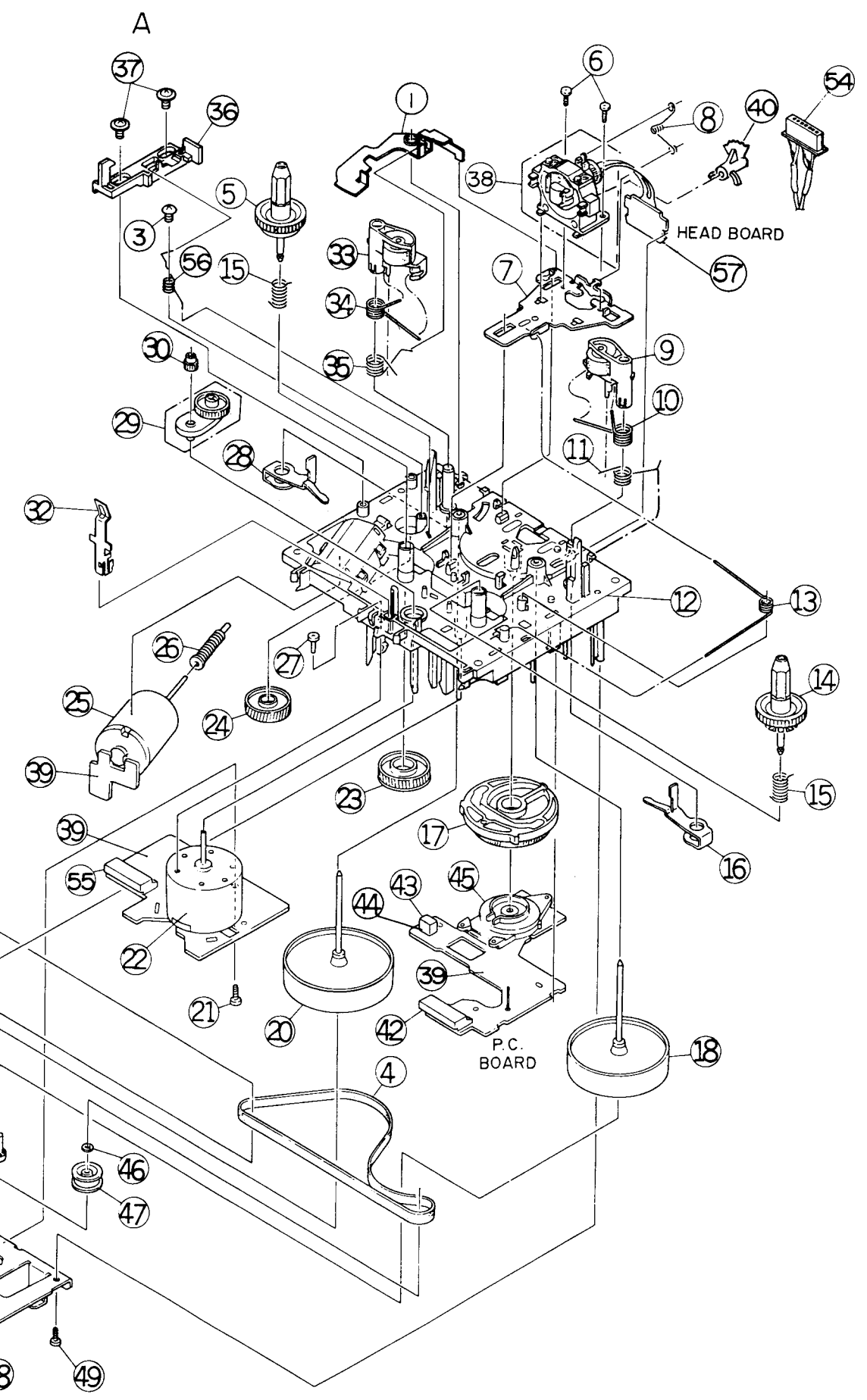
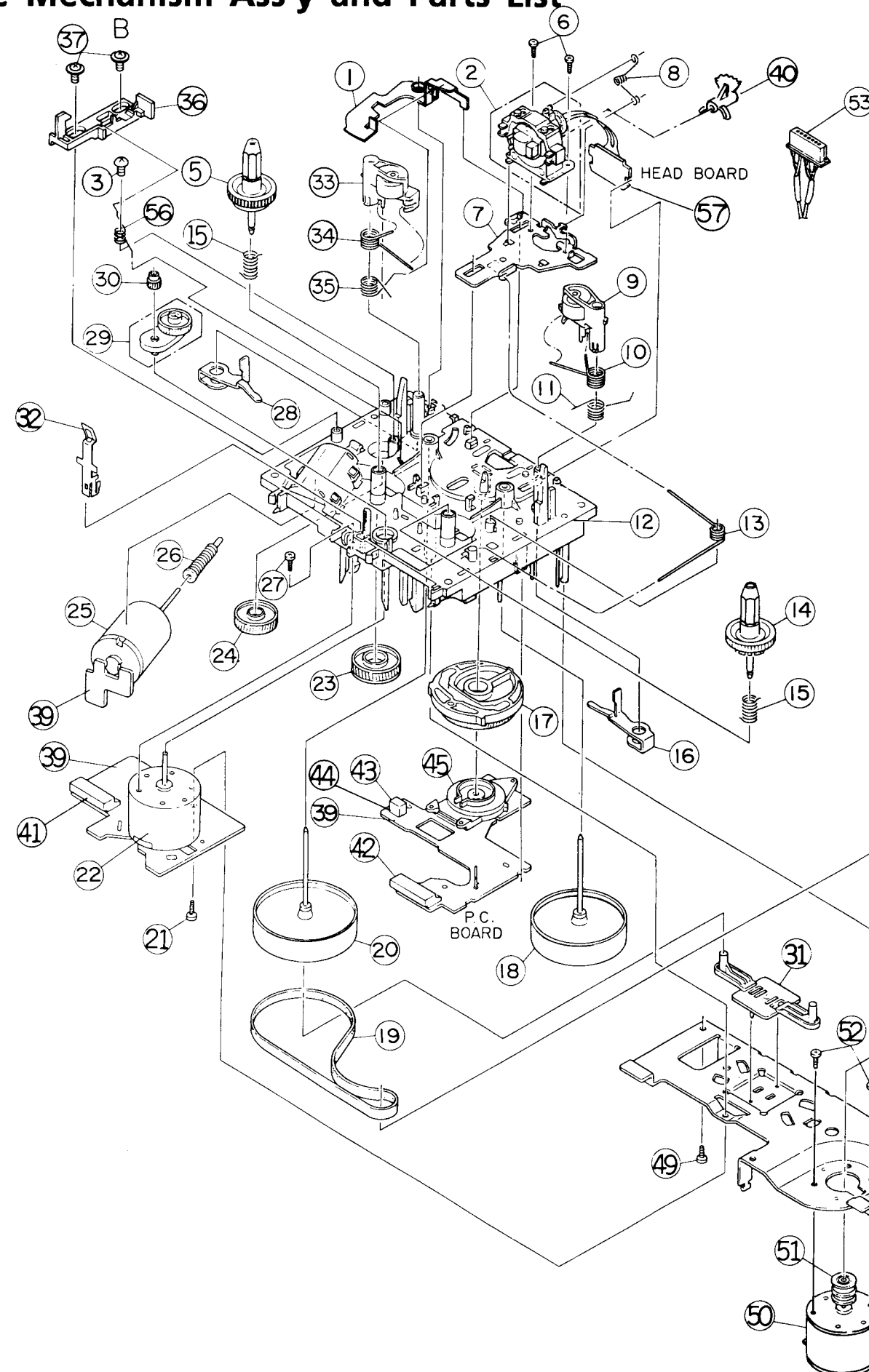
CD Mechanism Ass'y and Parts List



■ Parts List (CD Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Area
1	EPB-002A	MECHANISM BASE ASSY	1		
2	OPTIMA-6S	PICK UP ASS'Y	1		
3	E406777-001	SHAFT	1		
4	SDSF2006Z	SCREW	1		
5	E307746-001	CD RACK	1		
6	EPB-003A	MECHANISM BASE ASSY	1		
7	SDSP2003N	SCREW	4		
8	E406750-001	PINION GEAR	1		
9	EPB-001C	TURNTABLE	1		
10	E406784-001	DC MOTOR	1		
11	E406783-001	DC MOTOR	1		
12	EMW10190-001(S)	CIRCUIT BOARD	1		
13	ESB1100-005	LEAF SWITCH	1		
14	E75832-001	SPECIAL SCREW	1		
15	EMV5109-006B	PLUG ASSY	1	6PIN	
16	E102357-221	LOADING BASE	1		
17	E65923-003	SCREW	3		
18	SPSK2640Z	SCREW	2		
19	E75984-001	MOTOR PULLEY	1		
20	E75950-002	BELT	1		
21	E72024-001	SPEED NUT	1		
22	E75985-001	GEAR	1		
23	E75986-002	GEAR	1		
24	SBSF3008Z	SCREW	1		
25	E307252-221	CAM - PLATE	1		
26	E75987-001	REEL GEAR	1		
27	E75989-001	SPRING	1		
28	E307162-221	LEVER	1		
29	ESS1200-002	SLIDE SWITCH	1		
30	RF-500TB-12560	MOTOR	1		
31	EMW10255-002(S)	CIRCUIT BOARD	1		
32	EMV5109-005B	PLUG ASSY	1	5PIN	
33	E406871-001	SPRING	2		
34	E406294-002	INSULATOR	4		
35	E307179-221	ELEVATOR BASE ASSY	1		

Cassette Mechanism Ass'y and Parts List



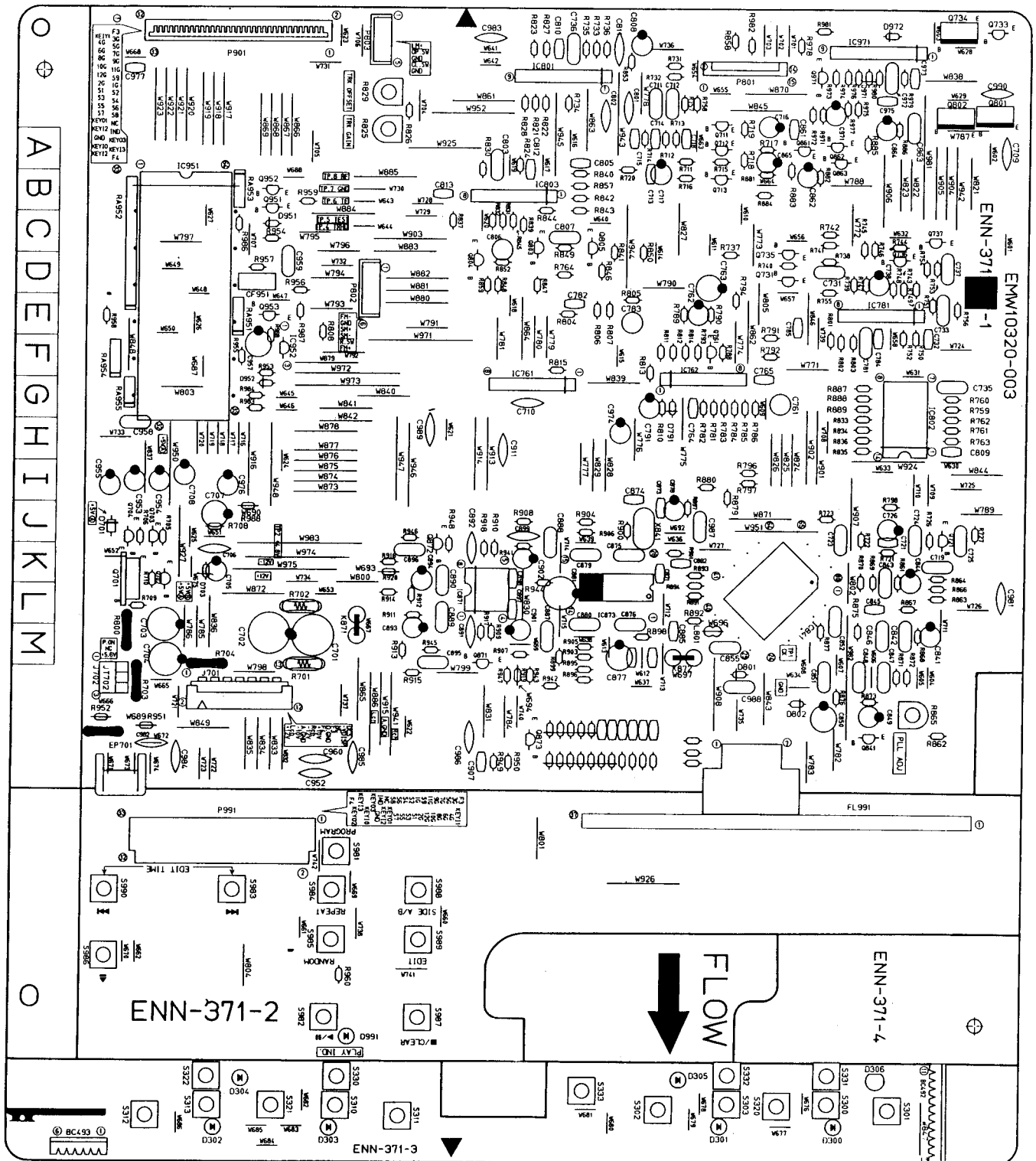
■ Parts List (Cassete Mechanism Ass'y)

Item	Part Number	Part Name	Q'ty	Description	Areas
1	VKL7246-001	EJECT BRACKET	2		
2	VKS3551-00B	HEAD MOUNT ASSY	1	(B)	
3	GBSF3008Z	SCREW	2		
4	VKB3001-054	CAPSTAN BELT	1	(A)	
5	VKS5321-00D	TAKE-UP REEL DISK	2	RIGHT	
6	SDST2004Z	SCREW	4	FOR HEAD MOUNT ASSY	
7	VKL6942-00E	HEAD BASE	2		
8	VKW4994-001	HEAD SPRING	2		
9	VKP4221-00C	PINCH ROLLER	2	LEFT	
10	VKW4982-001	PINCH ROLLER SPRING	2	LEFT	
11	VKW4933-005	TORSION SPRING	2	LEFT	
12	VKS1125-00A	CHASSIS BASE	2		
13	VKW4930-002	SPRING	2		
14	VKS3480-005	SUPPLY REEL DISK	2	LEFT	
15	VKW4928-003	SPRING	4	FOR REEL ASSY	
16	VKL6940-002	PINCH ROLLER LEVER	2	LEFT	
17	VKS2209-005	CONTROL CAM	2		
18	VKF3186-00C	FLYWHEEL	2	LEFT	
19	VKB3001-055	CAPSTAN BELT	1	(B)	
20	VKF3184-00C	FLYWHEEL	2	RIGHT	
21	SDSF2608Z	SCREW	2	PCB - FM BRACKET	
22	MMN-6F4RA38	DC MOTOR	2	REEL	
23	VKS5331-002	ACTUATOR GEAR	2		
24	VKS5330-004	DRIVE GEAR	2		
25	MXN-13FB12F	DC MOTOR	2	CAM	
26	VKS5329-002	PINION GEAR	2		
27	SDSP2605Z	SCREW	2	CHASSIS BASE - MOTOR	
28	VKL6939-002	PINCH ROLLER LEVER	2	RIGHT	
29	VKS5325-00F	F.F/REW.ARM	2		
30	VKS5328-002	REEL GEAR	2		
31	VKS5327-003	MECHA PLATE	2		
32	VKY4628-002	SPRING	2		
33	VKP4219-00C	PINCH ROLLER	2	RIGHT	
34	VKW4981-001	TORSION SPRING	2	RIGHT	
35	VKW4932-005	TORSION SPRING	2	RIGHT	
36	E308162-001	EJECT LEVER	2		
37	E407214-001	SPECIAL SCREW	4		
38	VKS3550-00B	HEAD MOUNT	1	(A)	
39	VMW2362-001	PRINTED BOARD	2		
40	VKS3485-002	TIMING GEAR	2		
41	VMC0249-R08N	CONNECT TERMINAL	1	(B)	
42	VMC0234-R07	CONNECT TERMINAL	2		
43	DN6851A	I.C(DIGI-OTHER)	2		
44	VKS3487-002	IC HOLDER	2		
45	VKS3587-00A	CAM SWITCH	2		
46	WDL163525-4	WASHER	1		
47	VKR4631-003	IDLER PULLEY	1		
48	VKM3618-00A	FLYWHEEL BRACKET	1		
49	SDSF2605Z	SCREW	4	CHASSIS BASE - FM BRACKET	
50	MMI-6H2LWSK	DC MOTOR	1	CAPSTAN	
51	VKR4632-002	MOTOR PULLEY	1		
52	SPSP2603Z	SCREW	2		
53	VDM007P-024I	CONNECTOR WIRE ASSY	1	(B)	
54	VDM003P-040I	CONNECTOR WIRE ASSY	1	(A)	
55	VMC0249-R04N	CONNECT TERMINAL	1	(A)	
56	E407304-001	SPRING	2		
57	EMW4816-001	CIRCUIT BOARD	2		

Printed Circuit Board Ass'y and Parts List

■ ENN-371 □ CD PC Board Ass'y

Note : ENN-371 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENN-371 	Australia the U.K. Continental Europe Scandinavia
ENN-371 	Germany Italy

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q701	2SB1187(E,F)	SILICON ROHM	
	Q702	2SC1740S(R,S)	SILICON ROHM	
	Q703	2SA934(Q,R)	SILICON ROHM	
	Q704	DTA144ES	SILICON ROHM	
	Q711	2SC535(B,C)	SILICON HITACHI	
	Q712	2SC1740S(R,S)	SILICON ROHM	
	Q713	2SA933S(R,S)	SILICON ROHM	
	Q721	2SD2144S(VW)	SILICON ROHM	
	Q731	2SD2144S(VW)	SILICON ROHM	
	Q733	2SC2060(Q,R)	SILICON ROHM	
	Q734	2SB1357(E,F)	SILICON ROHM	
	Q735	DTA144WS	SILICON ROHM	
	Q736	2SA933S(R,S)	SILICON ROHM	
	Q737	2SA933S(R,S)	SILICON ROHM	
	Q761	2SD2144S(VW)	SILICON ROHM	
	Q801	2SD2037(E,F)	SILICON ROHM	
	Q802	2SB1357(E,F)	SILICON ROHM	
	Q803	2SD2144S(VW)	SILICON ROHM	
	Q804	2SD2144S(VW)	SILICON ROHM	
	Q805	2SD2144S(VW)	SILICON ROHM	
	Q841	2SD2144S(VW)	SILICON ROHM	
	Q861	2SA933S(R,S)	SILICON ROHM	
	Q862	2SC1740S(R,S)	SILICON ROHM	
	Q863	2SC1740S(R,S)	SILICON ROHM	
	Q871	2SD2144S(VW)	SILICON ROHM	
	Q872	2SD2144S(VW)	SILICON ROHM	
	Q873	DTA144ES	SILICON ROHM	
	Q951	DTA114YS	SILICON ROHM	
	Q952	DTA114YS	SILICON ROHM	
	Q953	DTA114YS	SILICON ROHM	
	Q971	2SA934(Q,R)	SILICON ROHM	

Δ : SAFETY PARTS

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC761	STA341M(A)	I.C. SANKEN	
	IC762	MS218AL	I.C. MITSUBISHI	
	IC781	MS218AL	I.C. MITSUBISHI	
	IC801	NJM072S	I.C. DAINICHI	
	IC802	XRA10339	I.C. EXAR JAPAN	
	IC803	MS218AL	I.C. MITSUBISHI	
	IC841	YM7121C	I.C. YAMAHA	
	IC871	XRA15218	I.C. ROHM	
	IC873	MN35501	I.C. MATSUSHITA	
	IC951	HD404019RC11S	I.C. HITACHI	
	IC952	MN1281(P,Q)	I.C. MATSUSHITA	
	IC971	NJM2904S	I.C. DAINICHI	

Δ : SAFETY PARTS

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D300	SLR-342MCA47	L.E.D. ROHM	
	D301	SLR-342MCA47	L.E.D. ROHM	
	D302	SLR-342MCA47	L.E.D. ROHM	
	D303	SLR-342MCA47	L.E.D. ROHM	
	D304	SLR-342VC3F	L.E.D. ROHM	
	D305	SLR-342VC3F	L.E.D. ROHM	
	D306	SPR-39MVWF	L.E.D. ROHM	
	D701	1SR139-200	SILICON ROHM	
	D703	MT25.6JB	ZENER ROHM	
	D791	1SS119	SILICON HITACHI	
	D951	1SS119	SILICON HITACHI	
	D952	1SS119	SILICON HITACHI	
	D971	MT22.4JB	ZENER ROHM	
	D972	1SS119	SILICON HITACHI	
	D991	SLR-342MCA47	L.E.D. ROHM	

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C701	QETB1CM-108	1000MF 16V ELECTRO	
	C702	QETB1CM-108	1000MF 16V ELECTRO	
	C703	QETB1CM-227	220MF 16V ELECTRO	
	C704	QETB1CM-227	220MF 16V ELECTRO	
	C705	QETB1CM-476	47MF 16V ELECTRO	
	C706	QCF21HP-223	0.022MF 50V CERAMIC	
	C707	QETB0JM-227	220MF 6.3V ELECTRO	
	C708	QETB1AM-107	100MF 10V ELECTRO	
	C709	QCF21HP-223	0.022MF 50V CERAMIC	
	C710	QCF21HP-223	0.022MF 50V CERAMIC	
	C711	QFLB1HJ-472	4700PF 50V MYLAR	
	C712	QFLB1HJ-472	4700PF 50V MYLAR	
	C713	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C714	QCSB1HK-3R9	3.9PF 50V CERAMIC	
	C715	QCSB1HK-471	470PF 50V CERAMIC	
	C716	QETB1EM-106	10MF 25V ELECTRO	
	C717	QETB1CM-476	47MF 16V ELECTRO	
	C718	QCSB1HK-101	100PF 50V CERAMIC	
	C719	QFLB1HJ-183	0.018MF 50V MYLAR	
	C721	QCSB1HJ-470	47PF 50V CERAMIC	
	C723	QCZ0202-155	1.5MF 25V CERAMIC	
	C724	QFLB1HJ-563	0.056MF 50V MYLAR	
	C725	QFV81HJ-564	0.56MF 50V T.FILM	
	C726	QETB1EM-106	10MF 25V ELECTRO	
	C731	QFLB1HJ-183	0.018MF 50V MYLAR	
	C732	QCSB1HK-271	270PF 50V CERAMIC	
	C733	QFLB1HJ-393	0.039MF 50V MYLAR	
	C735	QFV81HJ-104	0.1MF 50V T.FILM	
	C736	QFV81HJ-224	0.22MF 50V T.FILM	
	C737	QFV81HJ-104	0.1MF 50V T.FILM	
	C738	QETB1CM-476	47MF 16V ELECTRO	
	C761	QEN51HM-225	2.2MF 50V NON POLE	
	C762	QETB1EM-226	22MF 25V ELECTRO	
	C763	QETB0JM-227	220MF 6.3V ELECTRO	
	C764	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C765	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C781	QFLB1HJ-272	2700PF 50V MYLAR	
	C782	QCSB1HK-101	100PF 50V CERAMIC	
	C783	QEN51HM-225	2.2MF 50V NON POLE	
	C784	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C785	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C791	QETB1HM-475	4.7MF 50V ELECTRO	
	C801	QCT26CH-151	150PF 50V CERAMIC	
	C802	QCT26CH-101	100PF 50V CERAMIC	
	C803	QFLB1HJ-223	0.022MF 50V MYLAR	
	C805	QCSB1HJ-470	47PF 50V CERAMIC	
	C806	QEN51HM-225	2.2MF 50V NON POLE	
	C807	QFLB1HJ-563	0.056MF 50V MYLAR	
	C808	QETB1CM-476	47MF 16V ELECTRO	
	C809	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C810	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C811	QCF21HP-223	0.022MF 50V CERAMIC	
	C812	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C813	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C841	QETB1AM-107	100MF 10V ELECTRO	
	C842	QFV81HJ-104	0.1MF 50V T.FILM	
	C843	QFV81HJ-104	0.1MF 50V T.FILM	
	C844	QETB1EM-106	10MF 25V ELECTRO	
	C845	QCSB1HK-101	100PF 50V CERAMIC	
	C846	QFV81HJ-105	1MF 50V T.FILM	
	C847	QFLB1HJ-182	1800PF 50V MYLAR	
	C848	QFV81HJ-224	0.22MF 50V T.FILM	
	C849	QETB1EM-106	10MF 25V ELECTRO	
	C850	QETB0JM-227	220MF 6.3V ELECTRO	
	C851	QFV81HJ-104	0.1MF 50V T.FILM	
	C852	QFV81HJ-104	0.1MF 50V T.FILM	
	C855	QFLB1HJ-473	0.047MF 50V MYLAR	
	C861	QCSB1HK-101	100PF 50V CERAMIC	
	C862	QETB1CM-107	100MF 16V ELECTRO	
	C863	QFLB1HJ-473	0.047MF 50V MYLAR	
	C864	QETB1EM-106	10MF 25V ELECTRO	
	C865	QETB1HM-105	1MF 50V ELECTRO	
	C873	QCT30CH-120	12PF 50V CERAMIC	
	C874	QCT30CH-3R9	3.9PF 50V CERAMIC	
	C875	QCZ0202-155	1.5MF 25V CERAMIC	
	C876	QCZ0202-155	1.5MF 25V CERAMIC	
	C877	QETB0JM-227	220MF 6.3V ELECTRO	
	C879	QCZ0202-155	1.5MF 25V CERAMIC	
	C880	QCZ0202-155	1.5MF 25V CERAMIC	
	C881	QETB0JM-477	470MF 6.3V ELECTRO	
	C882	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C887	QFLB1HJ-152	1500PF 50V MYLAR	
	C888	QFLB1HJ-152	1500PF 50V MYLAR	
	C889	QFLB1HJ-122	1200PF 50V MYLAR	
	C890	QFLB1HJ-122	1200PF 50V MYLAR	
	C891	QCS21HJ-121	120PF 50V CERAMIC	
	C892	QCS21HJ-121	120PF 50V CERAMIC	
	C893	EEZ2505-226	22MF 50V ELECTRO	
	C894	EEZ2505-226	22MF 50V ELECTRO	
	C895	QFLB1HJ-683	0.068MF 50V MYLAR	
	C896	QFLB1HJ-683	0.068MF 50V MYLAR	
	C897	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C898	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C899	QCY21HK-122	1200PF 50V CERAMIC	
	C907	QCVB1CM-103	0.01MF 16V CERAMIC	

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C953	QETB1HM-475	4.7MF 50V ELECTRO	
	C954	QETB1HM-475	4.7MF 50V ELECTRO	
	C955	QETB1HM-226	22MF 50V ELECTRO	
	C957	QETB1AM-227	220MF 10V ELECTRO	
	C958	QCZ0202-155	1.5MF 25V CERAMIC	
	C971	QETB1CM-476	47MF 16V ELECTRO	
	C972	QFLB1HJ-103	0.01MF 50V MYLAR	
	C973	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C974	QETB1AM-107	100MF 10V ELECTRO	
	C975	QCHB1EZ-223	0.022MF 25V CERAMIC	
	C976	QETB1HM-475	4.7MF 50V ELECTRO	
	C984	QCS21HJ-470	47PF 50V CERAMIC	H
	C987	QCZ0202-155	1.5MF 25V CERAMIC	
	C988	QCZ0202-155	1.5MF 25V CERAMIC	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
Δ	R701	PTH61G25AR4R7M	FUSIBLE RE SI	
Δ	R702	PTH61G25AR4R7M	FUSIBLE RE SI	
Δ	R703	QRZ0077-100	10 1/4W FUSIBLE	
Δ	R704	QRZ0077-100	10 1/4W FUSIBLE	
	R705	QRD167J-472	4.7K 1/6W CARBON	
	R706	QRD167J-331	330 1/6W CARBON	
	R708	QRD167J-472	4.7K 1/6W CARBON	
	R709	QRD167J-122	1.2K 1/6W CARBON	
	R710	QRD167J-121	120 1/6W CARBON	
	R711	QRD167J-183	18K 1/6W CARBON	
	R712	QRD167J-432	4.3K 1/6W CARBON	
	R713	QRD167J-391	390 1/6W CARBON	
	R714	QRD161J-221	220 1/6W CARBON	
	R715	QRD167J-152	1.5K 1/6W CARBON	
	R716	QRD167J-561	560 1/6W CARBON	
	R717	QRD167J-431	430 1/6W CARBON	
	R718	QRD167J-512	5.1K 1/6W CARBON	
	R719	QRD167J-152	1.5K 1/6W CARBON	
	R720	QRD167J-271	270 1/6W CARBON	
	R721	QRD167J-471	470 1/6W CARBON	
	R722	QRD167J-682	6.8K 1/6W CARBON	
	R723	QRD167J-103	10K 1/6W CARBON	
	R726	QRD167J-102	1K 1/6W CARBON	
	R727	QRD167J-183	18K 1/6W CARBON	
	R731	QRD167J-104	100K 1/6W CARBON	
	R732	QRD167J-104	100K 1/6W CARBON	
	R733	QRD167J-394	390K 1/6W CARBON	
	R734	QRD167J-394	390K 1/6W CARBON	
	R735	QRD167J-121	120 1/6W CARBON	
	R736	QRD167J-182	1.8K 1/6W CARBON	
	R737	QRD167J-681	680 1/6W CARBON	
	R738	QRD167J-473	47K 1/6W CARBON	
	R739	QRD167J-331	330 1/6W CARBON	
	R740	QRD167J-183	18K 1/6W CARBON	
	R741	QRD167J-103	10K 1/6W CARBON	
	R742	QRD167J-104	100K 1/6W CARBON	
	R743	QRD167J-474	470K 1/6W CARBON	
	R744	QRD167J-562	5.6K 1/6W CARBON	
	R745	QRD167J-184	180K 1/6W CARBON	
	R746	QRD167J-183	18K 1/6W CARBON	
	R747	QRD167J-473	47K 1/6W CARBON	
	R748	QRD167J-471	470 1/6W CARBON	
	R749	QRD167J-105	1M 1/6W CARBON	
	R750	QRD167J-273	27K 1/6W CARBON	
	R751	QRD167J-394	390K 1/6W CARBON	
	R752	QRD167J-333	33K 1/6W CARBON	
	R753	QRD167J-394	390K 1/6W CARBON	
	R754	QRD167J-102	1K 1/6W CARBON	
	R755	QRD167J-105	1M 1/6W CARBON	
	R756	QRD161J-221	220 1/6W CARBON	
	R757	QRD167J-105	1M 1/6W CARBON	
	R758	QRD167J-105	1M 1/6W CARBON	
	R759	QRD167J-104	100K 1/6W CARBON	
	R760	QRD167J-332	3.3K 1/6W CARBON	
	R761	QRD167J-104	100K 1/6W CARBON	
	R762	QRD167J-682	6.8K 1/6W CARBON	
	R763	QRD167J-562	5.6K 1/6W CARBON	
	R764	QRD167J-183	18K 1/6W CARBON	
	R781	QRD167J-434	430K 1/6W CARBON	
	R782	QRD167J-274	270K 1/6W CARBON	
	R783	QRD167J-203	20K 1/6W CARBON	
	R784	QRD167J-224	220K 1/6W CARBON	
	R785	QRD167J-562	5.6K 1/6W CARBON	
	R786	QRD167J-392	3.9K 1/6W CARBON	
	R788	QRD167J-103	10K 1/6W CARBON	
	R789	QRD167J-102	1K 1/6W CARBON	
	R790	QRD167J-471	470 1/6W CARBON	
	R791	QRD167J-683	68K 1/6W CARBON	
	R792	QRD167J-183	18K 1/6W CARBON	
	R793	QRD167J-183	18K 1/6W CARBON	
	R794	QRD161J-221	220 1/6W CARBON	
	R796	QRD167J-472	4.7K 1/6W CARBON	
	R797	QRD167J-472	4.7K 1/6W CARBON	
	R798	QRD167J-472	4.7K 1/6W CARBON	
Δ	R800	QRZ0077-4R7	4.7 1/4W FUSIBLE	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R801	QRD167J-474	470K 1/6W CARBON	
	R802	QRD167J-474	470K 1/6W CARBON	
	R803	QRD167J-823	82K 1/6W CARBON	
	R804	QRD161J-221	220 1/6W CARBON	
	R805	QRD167J-683	68K 1/6W CARBON	
	R806	QRD167J-123	12K 1/6W CARBON	
	R807	QRD167J-152	1.5K 1/6W CARBON	
	R808	QRD167J-2R2	2.2 1/6W CARBON	
	R810	QRD167J-684	680K 1/6W CARBON	
	R811	QRD167J-513	51K 1/6W CARBON	
	R812	QRD167J-513	51K 1/6W CARBON	
	R813	QRD167J-683	68K 1/6W CARBON	
	R814	QRD167J-683	68K 1/6W CARBON	
	R815	QRD161J-221	220 1/6W CARBON	
	R821	QRD167J-563	56K 1/6W CARBON	
	R822	QRD167J-563	56K 1/6W CARBON	
	R823	QRD167J-394	390K 1/6W CARBON	
	R824	QRD167J-681	680 1/6W CARBON	
	R825	QVPA601-202A	2K VARIABLE	
	R826	QRD167J-122	1.2K 1/6W CARBON	
	R827	QRD167J-334	330K 1/6W CARBON	
	R828	QRD167J-512	5.1K 1/6W CARBON	
	R829	QVPA601-154A	150K VARIABLE	
	R830	QRD167J-223	22K 1/6W CARBON	
	R831	QRD167J-682	6.8K 1/6W CARBON	
	R832	QRD167J-103	10K 1/6W CARBON	
	R833	QRD167J-562	5.6K 1/6W CARBON	
	R834	QRD167J-562	5.6K 1/6W CARBON	
	R835	QRD167J-562	5.6K 1/6W CARBON	
	R836	QRD167J-562	5.6K 1/6W CARBON	
	R837	QRD167J-183	18K 1/6W CARBON	
	R839	QRD167J-103	10K 1/6W CARBON	
	R840	QRD167J-154	150K 1/6W CARBON	
	R841	QRD167J-103	10K 1/6W CARBON	
	R842	QRD167J-303	30K 1/6W CARBON	
	R843	QRD167J-434	430K 1/6W CARBON	
	R844	QRD167J-434	430K 1/6W CARBON	
	R845	QRD167J-103	10K 1/6W CARBON	
	R846	QRD167J-184	180K 1/6W CARBON	
	R847	QRD167J-104	100K 1/6W CARBON	
	R848	QRD167J-104	100K 1/6W CARBON	
	R849	QRD167J-681	680 1/6W CARBON	
	R850	QRD167J-183	18K 1/6W CARBON	
	R852	QRD167J-102	1K 1/6W CARBON	
	R853	QRD167J-562	5.6K 1/6W CARBON	
	R857	QRD161J-221	220 1/6W CARBON	
	R858	QRD167J-562	5.6K 1/6W CARBON	
	R859	QRD167J-183	18K 1/6W CARBON	
	R861	QRD167J-182	1.8K 1/6W CARBON	
	R862	QRD161J-221	220 1/6W CARBON	
	R863	QRD167J-184	180K 1/6W CARBON	
	R864	QRD167J-393	39K 1/6W CARBON	
	R865	QVPA601-104A	100K VARIABLE	
	R866	QRD167J-224	220K 1/6W CARBON	
	R867	QRD167J-182	1.8K 1/6W CARBON	
	R868	QRD167J-122	1.2K 1/6W CARBON	
	R869	QRD167J-822	8.2K 1/6W CARBON	
	R870	QRD167J-822	8.2K 1/6W CARBON	
	R871	QRD167J-821	820 1/6W CARBON	
	R872	QRD167J-182	1.8K 1/6W CARBON	
	R873	QRD167J-101	100 1/6W CARBON	
	R875	QRD167J-682	6.8K 1/6W CARBON	
	R876	QRD167J-682	6.8K 1/6W CARBON	
	R877	QRD167J-102	1K 1/6W CARBON	
	R879	QRD167J-102	1K 1/6W CARBON	
	R880	QRD167J-102	1K 1/6W CARBON	
	R881	QRD167J-103	10K 1/6W CARBON	
	R882	QRD167J-272	2.7K 1/6W CARBON	
	R883	QRD167J-102	1K 1/6W CARBON	
	R884	QRD167J-271	270 1/6W CARBON	
	R885	QRD167J-103	10K 1/6W CARBON	
	R886	QRD167J-562	5.6K 1/6W CARBON	
	R887	QRD167J-472	4.7K 1/6W CARBON	
	R888	QRD167J-822	8.2K 1/6W CARBON	
	R889	QRD167J-103	10K 1/6W CARBON	
	R891	QRD167J-561	560 1/6W CARBON	
	R892	QRD167J-561	560 1/6W CARBON	
	R893	QRD167J-561	560 1/6W CARBON	
	R894	QRD167J-561	560 1/6W CARBON	
	R895	QRD167J-560	56 1/6W CARBON	
	R896	QRD167J-560	56 1/6W CARBON	
	R897	QRD167J-101	100 1/6W CARBON	
	R898	QRD167J-561	560 1/6W CARBON	
	R899	QRD167J-271	270 1/6W CARBON	
	R900	QRD167J-330	33 1/6W CARBON	
	R901	QRD167J-105	1M 1/6W CARBON	
	R903	QRD167J-273	27K 1/6W CARBON	
	R904	QRD167J-273	27K 1/6W CARBON	
	R905	QRD167J-273	27K 1/6W CARBON	
	R906	QRD167J-273	27K 1/6W CARBON	
	R907	QRD167J-392	3.9K 1/6W CARBON	
	R908	QRD167J-392	3.9K 1/6W CARBON	
	R909	QRD167J-472	4.7K 1/6W CARBON	
	R910	QRD167J-472	4.7K 1/6W CARBON	
	R911	QRD167J-273	27K 1/6W CARBON	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R912	QRD167J-273	27K 1/6W CARBON	
	R913	QRD167J-561	560 1/6W CARBON	
	R914	QRD167J-561	560 1/6W CARBON	
	R915	QRD161J-221	220 1/6W CARBON	
	R916	QRD161J-221	220 1/6W CARBON	
	R917	QRD167J-183	18K 1/6W CARBON	
	R918	QRD167J-183	18K 1/6W CARBON	
	R941	QRD167J-182	1.8K 1/6W CARBON	
	R942	QRD167J-512	5.1K 1/6W CARBON	
	R943	QRD167J-181	180 1/6W CARBON	
	R944	QRD167J-682	6.8K 1/6W CARBON	
	R945	QRD167J-104	100K 1/6W CARBON	
	R946	QRD167J-104	100K 1/6W CARBON	
	R947	QRD167J-392	3.9K 1/6W CARBON	
	R948	QRD167J-392	3.9K 1/6W CARBON	
	R949	QRD167J-684	680K 1/6W CARBON	
	R950	QRD167J-154	150K 1/6W CARBON	
	R953	QRD167J-471	470 1/6W CARBON	
	R954	QRD167J-473	47K 1/6W CARBON	
	R955	QRD167J-103	10K 1/6W CARBON	
	R956	QRD167J-472	4.7K 1/6W CARBON	
	R957	QRD167J-105	1M 1/6W CARBON	
	R958	QRD167J-473	47K 1/6W CARBON	
	R959	QRD167J-472	4.7K 1/6W CARBON	
	R960	QRD167J-151	150 1/6W CARBON	
	R968	QRD167J-222	2.2K 1/6W CARBON	
	R971	QRD167J-220	22 1/6W CARBON	
	R972	QRD167J-220	22 1/6W CARBON	
	R973	QRD167J-102	1K 1/6W CARBON	
	R974	QRD167J-105	1M 1/6W CARBON	
	R975	QRD167J-331	330 1/6W CARBON	
	R976	QRD167J-183	18K 1/6W CARBON	
	R977	QRD167J-102	1K 1/6W CARBON	
	R978	QRD167J-103	10K 1/6W CARBON	
	R979	QRD167J-103	10K 1/6W CARBON	
	R980	QRD167J-104	100K 1/6W CARBON	
	R981	QRD167J-222	2.2K 1/6W CARBON	
	R982	QRD167J-910	91 1/6W CARBON	
	R986	QRD167J-103	10K 1/6W CARBON	
	R987	QRD167J-473	47K 1/6W CARBON	
	R988	QRD167J-102	1K 1/6W CARBON	
	RA951	QRB049J-102	1K 1/10W R.NETWORK	

1: SAFETY PARTS

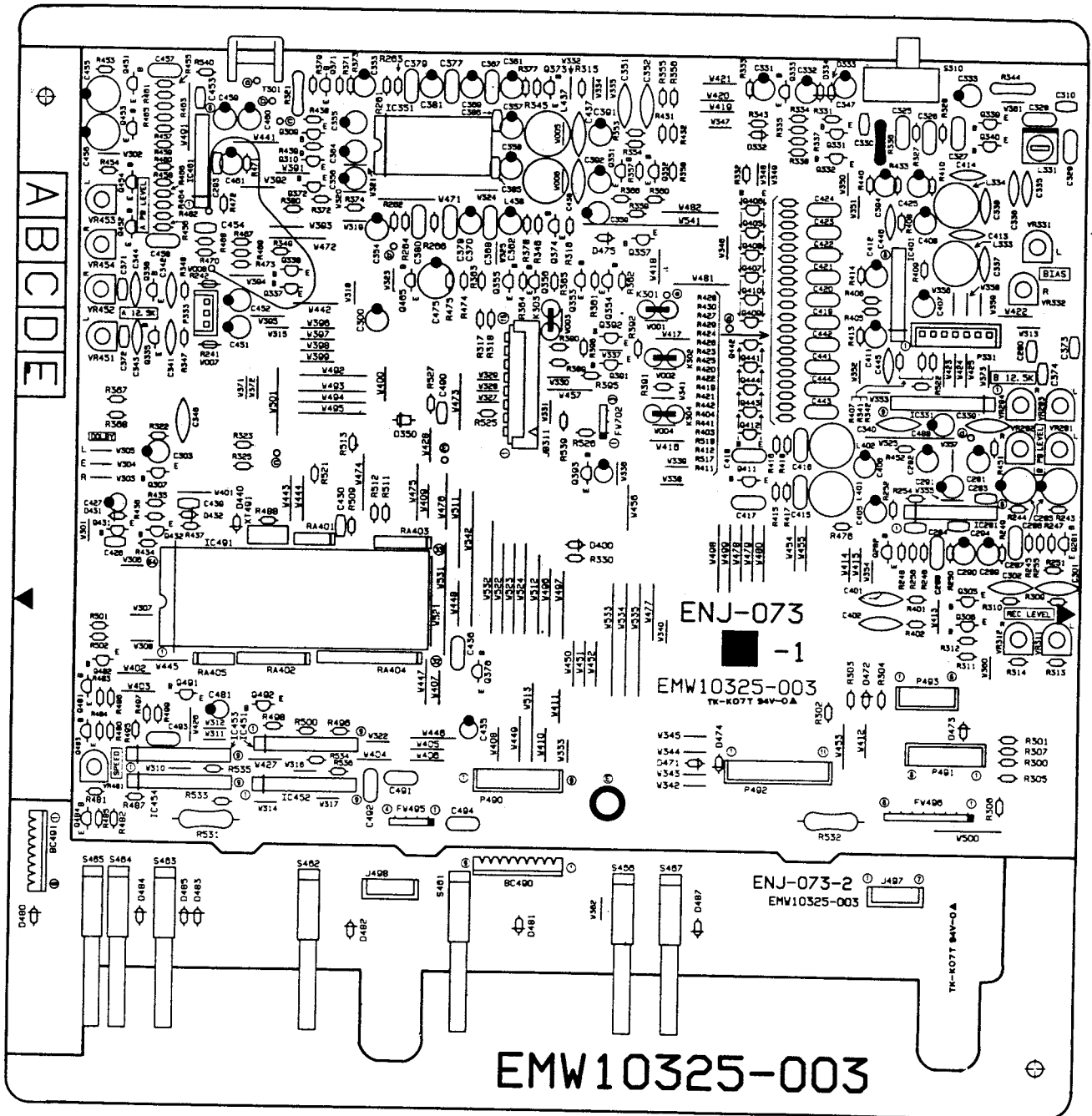
OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
		E306805-075	FELT SPACER	
		E308432-001SM		
		E407620-001	SPACER	
	J701	EMV7141-013M	CONNECTOR13PIN	
	P801	EMV7144-015	CONNECTOR15PIN	
	P802	EMV5109-006A	PLUG ASSY6PIN	
	P803	EMV5109-005A	PLUG ASSY5PIN	
	P901	EMV7123-033	CONNECTOR33PIN	
	P991	EMV7123-033R	CONNECTOR33PIN	
	S300	ESP0001-023M	TACT SWITCHB.WPLAY (A Mecha)	
	S301	ESP0001-023M	TACT SWITCHREW (A Mecha)	
	S302	ESP0001-023M	TACT SWITCHFF (A Mecha)	
	S303	ESP0001-023M	TACT SWITCHF.WPLAY (A Mecha)	
	S310	ESP0001-023M	TACT SWITCHB.WPLAY (B Mecha)	
	S311	ESP0001-023M	TACT SWITCHREW (B Mecha)	
	S312	ESP0001-023M	TACT SWITCHFF (B Mecha)	
	S313	ESP0001-023M	TACT SWITCHF.WPLAY (B Mecha)	
	S320	ESP0001-023M	TACT SWITCHSTOP (A Mecha)	
	S321	ESP0001-023M	TACT SWITCHSTOP (B Mecha)	
	S322	ESP0001-023M	TACT SWITCHREC.PAUSE (B Mecha)	
	S330	ESP0001-023M	TACT SWITCH HIGH SPEED DUBBING	
	S331	ESP0001-023M	TACT SWITCH DOLBY	
	S332	ESP0001-023M	TACT SWITCH REV.MODE	
	S333	ESP0001-023M	TACT SWITCH CD.REC	
	S981	ESP0001-023M	TACT SWITCH PROGRAM	
	S982	ESP0001-023M	TACT SWITCH PLAY/PAUSE	
	S983	ESP0001-023M	TACT SWITCH BACK.AUTO.SERH	
	S984	ESP0001-023M	TACT SWITCH REPEAT	
	S985	ESP0001-023M	TACT SWITCH RANDOM	
	S986	ESP0001-023M	TACT SWITCH OPEN/CLOSE	
	S987	ESP0001-023M	TACT SWITCH STOP/CLEAR	
	S988	ESP0001-023M	TACT SWITCH SIDE A/B	
	S989	ESP0001-023M	TACT SWITCH EDIT	
	S990	ESP0001-023M	TACT SWITCH FOW.AUTO.SERCH	
	X841	ECX0169-344EA	RESONATOR	
	BC492	EWS32B-A930	SOCKET WIRE	
	BC493	EWS326-A920	SOCKET WIRE	
	CF951	ECX0004-194KM	RESONATOR	
	EP701	E70225-001	EARTH PLATE	
	FL991	ELU0001-151	FL TUBE	
	JT702	EMV7122-103	CONNECTOR	

1: SAFETY PARTS

■ ENJ-073 □ Deck PC Board Ass'y

Note : ENJ-073 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENJ-073 B	the U.K. Continental Europe Scandinavia
ENJ-073 C	Germany Italy
ENJ-073 D	Australia

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q281	2SK301(P,Q)	F.E.T	MATSUSHITA
	Q282	2SK301(P,Q)	F.E.T	MATSUSHITA
	Q305	2SD2144S(VW)	SILICON	ROHM
	Q306	2SD2144S(VW)	SILICON	ROHM
	Q307	2SC1740S(R,S)	SILICON	ROHM
	Q309	DTC144ES	SILICON	ROHM
	Q310	DTC144ES	SILICON	ROHM
	Q331	2SC1740S(R,S)	SILICON	ROHM
	Q332	2SC1740S(R,S)	SILICON	ROHM
	Q333	2SC1740S(R,S)	SILICON	ROHM
	Q335	DTC144ES	SILICON	ROHM
	Q336	DTC144ES	SILICON	ROHM
	Q337	DTC144ES	SILICON	ROHM
	Q338	DTC144ES	SILICON	ROHM
	Q339	2SC1740S(R,S)	SILICON	ROHM

Δ : SAFETY PARTS

TRANSISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	Q340	2SC1740S(R,S)	SILICON ROHM	
	Q351	2SC1740S(R,S)	SILICON ROHM	
	Q352	2SC1740S(R,S)	SILICON ROHM	
	Q353	2SC1740S(R,S)	SILICON ROHM	
	Q354	2SC1740S(R,S)	SILICON ROHM	
	Q355	2SC1740S(R,S)	SILICON ROHM	
	Q356	2SC1740S(R,S)	SILICON ROHM	
	Q357	2SC1740S(R,S)	SILICON ROHM	
	Q371	2SD2144S(VW)	SILICON ROHM	
	Q372	2SD2144S(VW)	SILICON ROHM	
	Q373	2SD2144S(VW)	SILICON ROHM	
	Q374	2SD2144S(VW)	SILICON ROHM	
	Q376	DTA144ES	SILICON ROHM	
	Q391	2SD2144S(VW)	SILICON ROHM	
	Q392	2SD2144S(VW)	SILICON ROHM	
	Q393	DTA144ES	SILICON ROHM	
	Q405	DTA144ES	SILICON ROHM	
	Q406	DTA144ES	SILICON ROHM	
	Q407	DTA144ES	SILICON ROHM	
	Q408	DTA144ES	SILICON ROHM	
	Q409	DTA144ES	SILICON ROHM	
	Q410	DTA144ES	SILICON ROHM	
	Q411	DTA144ES	SILICON ROHM	
	Q412	DTA144ES	SILICON ROHM	
	Q431	DTA114ES	SILICON ROHM	
	Q432	DTA114ES	SILICON ROHM	
	Q441	DTA144ES	SILICON ROHM	
	Q442	DTA144ES	SILICON ROHM	
	Q443	DTA144ES	SILICON ROHM	
	Q444	DTA144ES	SILICON ROHM	
	Q451	2SK301(P,Q)	F.E.T MATSUSHITA	
	Q452	2SK301(P,Q)	F.E.T MATSUSHITA	
	Q453	2SK301(P,Q)	F.E.T MATSUSHITA	
	Q454	2SK301(P,Q)	F.E.T MATSUSHITA	
	Q465	DTA114YS	SILICON ROHM	
	Q481	2SC1740S(R,S)	SILICON ROHM	
	Q482	2SC1740S(R,S)	SILICON ROHM	
	Q483	2SA933S(R,S)	SILICON ROHM	
	Q484	2SA933S(R,S)	SILICON ROHM	
	Q491	DTA144ES	SILICON ROHM	
	Q492	DTA144ES	SILICON ROHM	

Δ : SAFETY PARTS

DIODES

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	D332	1SS119	SILICON HITACHI	
	D333	1SS119	SILICON HITACHI	
	D334	1SS119	SILICON HITACHI	
	D350	1SR139-200	SILICON ROHM	
	D400	1SS119	SILICON HITACHI	
	D431	1SS119	SILICON HITACHI	
	D432	MT23.9JB	ZENER ROHM	
	D440	1SS119	SILICON HITACHI	
	D471	1SS119	SILICON HITACHI	
	D472	1SS119	SILICON HITACHI	
	D473	1SS119	SILICON HITACHI	
	D474	1SS119	SILICON HITACHI	
	D475	1SS119	SILICON HITACHI	
	D480	1SS119	SILICON HITACHI	
	D481	1SS119	SILICON HITACHI	
	D482	1SS119	SILICON HITACHI	
	D483	1SS119	SILICON HITACHI	
	D484	1SS119	SILICON HITACHI	
	D485	1SS119	SILICON HITACHI	
	D487	1SS119	SILICON HITACHI	

Δ : SAFETY PARTS

I. C. S.

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	IC281	UPC1228HA	I.C. NEC	
	IC331	UPC1330HA	I.C. NEC	
	IC351	AN7374K	I.C. MATSUSHITA	
	IC401	XRA15218N	I.C. EXAR JAPAN	
	IC451	TAB409S	I.C. TOSHIBA	
	IC452	TAB409S	I.C. TOSHIBA	
	IC453	TAB409S	I.C. TOSHIBA	
	IC454	TAB409S	I.C. TOSHIBA	
	IC461	UPC1228HA	I.C. NEC	
	IC491	HD614081SD53	I.C. HITACHI	

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C280	QCVB1CM-103	0.01MF 16V CERAMIC	C
	C281	QEK51HM-225G	2.2MF 50V ELECTRO	
	C282	QEK51HM-225G	2.2MF 50V ELECTRO	
	C283	QCB81HK-101	100PF 50V CERAMIC	B
	C283	QCB81HK-471	470PF 50V CERAMIC	C
	C283	QCB81HK-101	100PF 50V CERAMIC	D
	C284	QCB81HK-101	100PF 50V CERAMIC	B
	C284	QCB81HK-471	470PF 50V CERAMIC	C
	C284	QCB81HK-101	100PF 50V CERAMIC	D
	C285	QETB1AM-107	100MF 10V ELECTRO	
	C286	QETB1AM-107	100MF 10V ELECTRO	
	C287	QFLB1HJ-822	8200PF 50V MYLAR	
	C288	QFLB1HJ-822	8200PF 50V MYLAR	
	C289	QER51HM-105G	1MF 50V ELECTRO	
	C290	QER51HM-105G	1MF 50V ELECTRO	
	C291	QEK51CM-107	100MF 16V ELECTRO	
	C293	QCHB1EZ-223	0.022MF 25V CERAMIC	C
	C294	QCHB1EZ-223	0.022MF 25V CERAMIC	C
	C301	QCY21HK-122	1200PF 50V CERAMIC	
	C302	QCY21HK-122	1200PF 50V CERAMIC	
	C303	QEK51HM-105G	1MF 50V ELECTRO	
	C310	QCB81HK-471	470PF 50V CERAMIC	B
	C310	QCB81HK-471	470PF 50V CERAMIC	C
	C325	QFLB1HJ-332	3300PF 50V MYLAR	
	C326	QFLB1HJ-332	3300PF 50V MYLAR	
	C327	QFLB1HJ-682	6800PF 50V MYLAR	
	C328	QFLB1HJ-183	0.018MF 50V MYLAR	
	C329	QFP81HG-562	5600PF 50V POLY	
	C330	QCHB1EZ-223	0.022MF 25V CERAMIC	C
	C331	QETB1HM-105	1MF 50V ELECTRO	
	C332	QETB1HM-105	1MF 50V ELECTRO	
	C333	QETB1EM-106	10MF 25V ELECTRO	
	C335	QCS21HJ-101	100PF 50V CERAMIC	
	C336	QCS21HJ-101	100PF 50V CERAMIC	
	C337	QCS21HJ-101	100PF 50V CERAMIC	
	C338	QCS21HJ-101	100PF 50V CERAMIC	
	C339	QCY21HK-152	1500PF 50V CERAMIC	
	C340	QCY21HK-152	1500PF 50V CERAMIC	
	C341	QCS21HJ-331	330PF 50V CERAMIC	
	C342	QCS21HJ-331	330PF 50V CERAMIC	
	C343	QCY21HK-122	1200PF 50V CERAMIC	
	C344	QCY21HK-122	1200PF 50V CERAMIC	
	C346	QCF21HP-223	0.022MF 50V CERAMIC	
	C347	QETB1CM-107	100MF 16V ELECTRO	
	C351	QCF21HP-473	0.047MF 50V CERAMIC	
	C352	QCF21HP-473	0.047MF 50V CERAMIC	
	C353	QETC1HM-105	1MF 50V ELECTRO	
	C354	QETC1HM-105	1MF 50V ELECTRO	
	C355	QEK51HM-105G	1MF 50V ELECTRO	
	C356	QEK51HM-105G	1MF 50V ELECTRO	
	C357	QETB1EM-106	10MF 25V ELECTRO	
	C358	QETB1EM-106	10MF 25V ELECTRO	
	C359	QEK51EM-106	10MF 25V ELECTRO	
	C361	QEK51HM-474G	0.47MF 50V ELECTRO	
	C362	QEK51HM-474G	0.47MF 50V ELECTRO	
	C364	QEK51CM-107	100MF 16V ELECTRO	
	C367	QFLB1HJ-152	1500PF 50V MYLAR	
	C368	QFLB1HJ-152	1500PF 50V MYLAR	
	C369	QEK51HM-474G	0.47MF 50V ELECTRO	
	C370	QEK51HM-474G	0.47MF 50V ELECTRO	
	C371	QCB81HK-331	330PF 50V CERAMIC	
	C372	QCB81HK-331	330PF 50V CERAMIC	
	C373	QCB81HK-331	330PF 50V CERAMIC	
	C374	QCB81HK-331	330PF 50V CERAMIC	
	C377	QFLB1HJ-152	1500PF 50V MYLAR	
	C378	QFLB1HJ-152	1500PF 50V MYLAR	
	C379	QFLB1HJ-272	2700PF 50V MYLAR	
	C380	QFLB1HJ-272	2700PF 50V MYLAR	
	C381	QETB1CM-226	22MF 16V ELECTRO	
	C383	QCB81HK-101	100PF 50V CERAMIC	C
	C384	QCB81HK-101	100PF 50V CERAMIC	C
	C385	QCB81HK-101	100PF 50V CERAMIC	C
	C386	QCB81HK-101	100PF 50V CERAMIC	C
	C391	QEK51EM-106	10MF 25V ELECTRO	
	C392	QEK51EM-106	10MF 25V ELECTRO	
	C394	QETB1CM-107	100MF 16V ELECTRO	
	C401	QCF21HP-473	0.047MF 50V CERAMIC	
	C402	QCF21HP-473	0.047MF 50V CERAMIC	
	C405	QETB1HM-225	2.2MF 50V ELECTRO	
	C406	QETB1HM-225	2.2MF 50V ELECTRO	
	C407	QER51HM-225G	2.2MF 50V ELECTRO	
	C408	QER51HM-225G	2.2MF 50V ELECTRO	
	C411	QER51EM-106	10MF 25V ELECTRO	
	C412	QER51EM-106	10MF 25V ELECTRO	
	C413	QCS21HJ-271	270PF 50V CERAMIC	
	C414	QCS21HJ-271	270PF 50V CERAMIC	
	C415	QFLB1HJ-822	8200PF 50V MYLAR	
	C416	QFLB1HJ-822	8200PF 50V MYLAR	
	C417	QFLB1HJ-562	5600PF 50V MYLAR	
	C418	QFLB1HJ-562	5600PF 50V MYLAR	
	C419	QFLB1HJ-123	0.012MF 50V MYLAR	
	C420	QFLB1HJ-123	0.012MF 50V MYLAR	
	C421	QFLB1HJ-102	1000PF 50V MYLAR	
	C422	QFLB1HJ-102	1000PF 50V MYLAR	
	C423	QFLB1HJ-103	0.01MF 50V MYLAR	
	C424	QFLB1HJ-103	0.01MF 50V MYLAR	
	C425	QETB1CM-107	100MF 16V ELECTRO	

Δ : SAFETY PARTS

CAPACITORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	C426	QCVB1CM-103	0.01MF 16V CERAMIC	
	C427	QEK51CM-226	22MF 16V ELECTRO	
	C430	QCGB1HK-102	1000PF 50V CERAMIC	
	C435	QETB1CM-476	47MF 16V ELECTRO	
	C436	QCZ0202-155	1.5MF 25V CERAMIC	
	C437	QCS21HJ-101	100PF 50V CERAMIC	
	C438	QCS21HJ-101	100PF 50V CERAMIC	
	C439	QCVB1CM-103	0.01MF 16V CERAMIC	
	C441	QFLB1HJ-123	0.012MF 50V MYLAR	
	C442	QFLB1HJ-123	0.012MF 50V MYLAR	
	C443	QFLB1HJ-103	0.01MF 50V MYLAR	
	C444	QFLB1HJ-103	0.01MF 50V MYLAR	
	C445	QCS21HJ-470	47PF 50V CERAMIC	
	C446	QCS21HJ-470	47PF 50V CERAMIC	
	C451	QEK51HM-225G	2.2MF 50V ELECTRO	
	C452	QEK51HM-225G	2.2MF 50V ELECTRO	
	C453	QCB1HK-101	100PF 50V CERAMIC	B
	C453	QCB1HK-471	470PF 50V CERAMIC	C
	C453	QCB1HK-101	100PF 50V CERAMIC	D
	C454	QCB1HK-101	100PF 50V CERAMIC	B
	C454	QCB1HK-471	470PF 50V CERAMIC	C
	C454	QCB1HK-101	100PF 50V CERAMIC	D
	C455	QETB1AM-107	100MF 10V ELECTRO	
	C456	QETB1AM-107	100MF 10V ELECTRO	
	C457	QFLB1HJ-822	8200PF 50V MYLAR	
	C458	QFLB1HJ-822	8200PF 50V MYLAR	
	C459	QEK51HM-105G	1MF 50V ELECTRO	
	C460	QEK51HM-105G	1MF 50V ELECTRO	
	C461	QETB1CM-107	100MF 16V ELECTRO	
	C475	QETB1AM-476	47MF 10V ELECTRO	
	C481	QETB1CM-107	100MF 16V ELECTRO	
	C488	QEK51CM-107	100MF 16V ELECTRO	
	C490	QCGB1HK-102	1000PF 50V CERAMIC	C
	C491	QFLB1HJ-104	0.1MF 50V MYLAR	
	C492	QFLB1HJ-104	0.1MF 50V MYLAR	
	C493	QFLB1HJ-104	0.1MF 50V MYLAR	
	C494	QFLB1HJ-104	0.1MF 50V MYLAR	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R241	QRD167J-470	47 1/6W CARBON	C
	R242	QRD167J-470	47 1/6W CARBON	C
	R243	QRD167J-470	47 1/6W CARBON	
	R244	QRD167J-470	47 1/6W CARBON	
	R245	QRD167J-334	330K 1/6W CARBON	
	R246	QRD167J-334	330K 1/6W CARBON	
	R247	QRD167J-562	5.6K 1/6W CARBON	
	R248	QRD167J-562	5.6K 1/6W CARBON	
	R249	QRD167J-682	6.8K 1/6W CARBON	
	R250	QRD167J-682	6.8K 1/6W CARBON	
	R251	QRD167J-105	1M 1/6W CARBON	
	R252	QRD167J-105	1M 1/6W CARBON	
	R254	QRD167J-471	470 1/6W CARBON	
	R255	QRD167J-272	2.7K 1/6W CARBON	
	R256	QRD167J-272	2.7K 1/6W CARBON	
	R261	QRD167J-102	1K 1/6W CARBON	
	R262	QRD167J-102	1K 1/6W CARBON	
	R263	QRD167J-562	5.6K 1/6W CARBON	
	R264	QRD167J-562	5.6K 1/6W CARBON	
	R266	QRD167J-223	22K 1/6W CARBON	
	R300	QRD167J-431	430 1/6W CARBON	
	R301	QRD167J-431	430 1/6W CARBON	
	R302	QRD167J-181	180 1/6W CARBON	
	R303	QRD167J-181	180 1/6W CARBON	
	R304	QRD167J-331	330 1/6W CARBON	
	R305	QRD167J-561	560 1/6W CARBON	
	R306	QRD167J-561	560 1/6W CARBON	
	R307	QRD167J-821	820 1/6W CARBON	
	R309	QRD167J-473	47K 1/6W CARBON	
	R310	QRD167J-473	47K 1/6W CARBON	
	R311	QRD167J-103	10K 1/6W CARBON	
	R312	QRD167J-103	10K 1/6W CARBON	
	R313	QRD167J-153	15K 1/6W CARBON	
	R314	QRD167J-153	15K 1/6W CARBON	
	R315	QRD167J-103	10K 1/6W CARBON	
	R316	QRD167J-103	10K 1/6W CARBON	
	R317	QRD167J-243	24K 1/6W CARBON	
	R318	QRD167J-243	24K 1/6W CARBON	
Δ	R321	QRZ0077-220	22 1/4W FUSIBLE	
	R322	QRD167J-913	91K 1/6W CARBON	
	R323	QRD167J-105	1M 1/6W CARBON	
	R325	QRD167J-104	100K 1/6W CARBON	
	R327	QRD167J-393	39K 1/6W CARBON	
	R328	QRD167J-393	39K 1/6W CARBON	
	R330	QRD167J-103	10K 1/6W CARBON	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R331	QRD167J-332	3.3K 1/6W CARBON	
	R332	QRD167J-332	3.3K 1/6W CARBON	
	R333	QRD167J-104	100K 1/6W CARBON	
	R334	QRD167J-821	820 1/6W CARBON	
	R335	QRD167J-821	820 1/6W CARBON	
Δ	R336	QRZ0077-100	10 1/4W FUSIBLE	
	R337	QRD167J-821	820 1/6W CARBON	
	R338	QRD167J-821	820 1/6W CARBON	
	R341	QRD167J-100	10 1/6W CARBON	
	R342	QRD167J-100	10 1/6W CARBON	
Δ	R343	QRD167J-222	2.2K 1/6W CARBON	
	R344	QRD167J-688S	6.8 1/4W UNF. CARBON	
	R345	QRD167J-562	5.6K 1/6W CARBON	
	R346	QRD167J-562	5.6K 1/6W CARBON	
	R347	QRD167J-224	220K 1/6W CARBON	
	R348	QRD167J-224	220K 1/6W CARBON	
	R349	QRD167J-223	22K 1/6W CARBON	
	R353	QRD167J-153	15K 1/6W CARBON	
	R354	QRD167J-153	15K 1/6W CARBON	
	R355	QRD167J-243	24K 1/6W CARBON	
	R356	QRD167J-243	24K 1/6W CARBON	
	R357	QRD167J-332	3.3K 1/6W CARBON	
	R358	QRD167J-332	3.3K 1/6W CARBON	
	R359	QRD167J-223	22K 1/6W CARBON	
	R360	QRD167J-223	22K 1/6W CARBON	
	R361	QRD167J-561	560 1/6W CARBON	
	R362	QRD167J-561	560 1/6W CARBON	
	R363	QRD167J-242	2.4K 1/6W CARBON	
	R364	QRD167J-242	2.4K 1/6W CARBON	
	R365	QRD167J-103	10K 1/6W CARBON	
	R366	QRD167J-105	1M 1/6W CARBON	
	R367	QRD167J-223	22K 1/6W CARBON	
	R368	QRD167J-223	22K 1/6W CARBON	
	R371	QRD167J-562	5.6K 1/6W CARBON	
	R372	QRD167J-562	5.6K 1/6W CARBON	
	R373	QRD167J-103	10K 1/6W CARBON	
	R374	QRD167J-103	10K 1/6W CARBON	
	R377	QRD167J-103	10K 1/6W CARBON	
	R378	QRD167J-103	10K 1/6W CARBON	
	R379	QRD167J-103	10K 1/6W CARBON	
	R380	QRD167J-103	10K 1/6W CARBON	
	R389	QRD161J-221	220 1/6W CARBON	
	R390	QRD161J-221	220 1/6W CARBON	
	R391	QRD167J-562	5.6K 1/6W CARBON	
	R392	QRD167J-562	5.6K 1/6W CARBON	
	R395	QRD167J-103	10K 1/6W CARBON	
	R396	QRD167J-103	10K 1/6W CARBON	
	R401	QRD167J-333	33K 1/6W CARBON	
	R402	QRD167J-333	33K 1/6W CARBON	
	R403	QRD167J-332	3.3K 1/6W CARBON	
	R404	QRD167J-332	3.3K 1/6W CARBON	
	R405	QRD167J-683	68K 1/6W CARBON	
	R406	QRD167J-683	68K 1/6W CARBON	
	R407	QRD167J-153	15K 1/6W CARBON	
	R408	QRD167J-153	15K 1/6W CARBON	
	R409	QRD167J-153	15K 1/6W CARBON	
	R410	QRD167J-153	15K 1/6W CARBON	
	R411	QRD167J-222	2.2K 1/6W CARBON	
	R412	QRD167J-222	2.2K 1/6W CARBON	
	R413	QRD167J-182	1.8K 1/6W CARBON	
	R414	QRD167J-182	1.8K 1/6W CARBON	
	R415	QRD161J-221	220 1/6W CARBON	
	R416	QRD161J-221	220 1/6W CARBON	
	R417	QRD161J-221	220 1/6W CARBON	
	R418	QRD161J-221	220 1/6W CARBON	
	R419	QRD167J-222	2.2K 1/6W CARBON	
	R420	QRD167J-222	2.2K 1/6W CARBON	
	R421	QRD167J-182	1.8K 1/6W CARBON	
	R422	QRD167J-182	1.8K 1/6W CARBON	
	R423	QRD167J-102	1K 1/6W CARBON	
	R424	QRD167J-102	1K 1/6W CARBON	
	R427	QRD167J-151	150 1/6W CARBON	
	R428	QRD167J-151	150 1/6W CARBON	
	R429	QRD167J-122	1.2K 1/6W CARBON	
	R430	QRD167J-122	1.2K 1/6W CARBON	
	R431	QRD167J-394	390K 1/6W CARBON	
	R432	QRD167J-394	390K 1/6W CARBON	
	R433	QRD161J-221	220 1/6W CARBON	
	R434	QRD167J-103	10K 1/6W CARBON	
	R435	QRD167J-223	22K 1/6W CARBON	
	R436	QRD167J-103	10K 1/6W CARBON	
	R437	QRD167J-102	1K 1/6W CARBON	
	R438	QRD167J-103	10K 1/6W CARBON	
	R439	QRD167J-103	10K 1/6W CARBON	
	R440	QRD161J-221	220 1/6W CARBON	
	R441	QRD167J-302	3K 1/6W CARBON	
	R442	QRD167J-302	3K 1/6W CARBON	
	R451	QRD167J-470	47 1/6W CARBON	C
	R452	QRD167J-470	47 1/6W CARBON	C
	R453	QRD167J-470	47 1/6W CARBON	

Δ : SAFETY PARTS

RESISTORS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	R454	QRD167J-470	47 1/6W CARBON	
	R455	QRD167J-334	330K 1/6W CARBON	
	R456	QRD167J-334	330K 1/6W CARBON	
	R457	QRD167J-362	3.6K 1/6W CARBON	
	R458	QRD167J-362	3.6K 1/6W CARBON	
	R459	QRD167J-222	2.2K 1/6W CARBON	
	R460	QRD167J-222	2.2K 1/6W CARBON	
	R461	QRD167J-332	3.3K 1/6W CARBON	
	R462	QRD167J-332	3.3K 1/6W CARBON	
	R463	QRD167J-682	6.8K 1/6W CARBON	
	R464	QRD167J-682	6.8K 1/6W CARBON	
	R465	QRD167J-223	22K 1/6W CARBON	
	R466	QRD167J-223	22K 1/6W CARBON	
	R467	QRD167J-105	1M 1/6W CARBON	
	R468	QRD167J-105	1M 1/6W CARBON	
	R469	QRD167J-105	1M 1/6W CARBON	
	R470	QRD167J-105	1M 1/6W CARBON	
	R471	QRD167J-471	470 1/6W CARBON	
	R472	QRD167J-472	4.7K 1/6W CARBON	
	R473	QRD167J-472	4.7K 1/6W CARBON	
	R474	QRD167J-274	270K 1/6W CARBON	
	R475	QRD167J-104	100K 1/6W CARBON	
	R476	QRD167J-472	4.7K 1/6W CARBON	
	R480	QRD167J-242	2.4K 1/6W CARBON	
	R481	QRD167J-153	15K 1/6W CARBON	
	R482	QRD167J-273	27K 1/6W CARBON	
	R483	QRD167J-184	180K 1/6W CARBON	
	R484	QRD167J-224	220K 1/6W CARBON	
	R485	QRD167J-683	68K 1/6W CARBON	
	R486	QRD167J-224	220K 1/6W CARBON	
	R487	QRD167J-224	220K 1/6W CARBON	
	R488	QRD167J-105	1M 1/6W CARBON	
	R495	QRD167J-123	12K 1/6W CARBON	
	R496	QRD167J-123	12K 1/6W CARBON	
	R497	QRD167J-682	6.8K 1/6W CARBON	
	R498	QRD167J-682	6.8K 1/6W CARBON	
	R499	QRD167J-563	56K 1/6W CARBON	
	R500	QRD167J-563	56K 1/6W CARBON	
	R501	QRD167J-103	10K 1/6W CARBON	
	R502	QRD167J-103	10K 1/6W CARBON	
	R509	QRD167J-103	10K 1/6W CARBON	
	R513	QRD161J-221	220 1/6W CARBON	
	R517	QRD167J-471	470 1/6W CARBON	
	R518	QRD167J-471	470 1/6W CARBON	
	R522	QRD161J-221	220 1/6W CARBON	
	R525	QRD161J-221	220 1/6W CARBON	
	R526	QRD161J-221	220 1/6W CARBON	
	R527	QRD167J-220	22 1/6W CARBON	C
Δ	R531	QRG022J-470A	47 2W O.M.FILM	
Δ	R532	QRG022J-470A	47 2W O.M.FILM	
	R533	QRD167J-163	16K 1/6W CARBON	
	R534	QRD167J-163	16K 1/6W CARBON	
	R535	QRD167J-183	18K 1/6W CARBON	
	R536	QRD167J-183	18K 1/6W CARBON	
	R539	QRD167J-472	4.7K 1/6W CARBON	
	R540	QRD167J-220	22 1/6W CARBON	B
	R540	QRD167J-220	22 1/6W CARBON	D
	RA401	QRB049J-103	10K 1/10W R.NETWORK	
	RA402	QRB089J-103	10K 1/10W R.NETWORK	
	VR281	QVPA601-201A	200 VARIABLE	
	VR282	QVPA601-201A	200 VARIABLE	
	VR283	QVPA601-104A	100K VARIABLE	
	VR284	QVPA601-104A	100K VARIABLE	
	VR311	QVPA601-503A	50K VARIABLE	
	VR312	QVPA601-503A	50K VARIABLE	
	VR331	QVPA601-503A	50K VARIABLE	
	VR332	QVPA601-503A	50K VARIABLE	
	VR451	QVPA601-104A	100K VARIABLE	
	VR452	QVPA601-104A	100K VARIABLE	
	VR453	QVPA601-201A	200 VARIABLE	
	VR454	QVPA601-201A	200 VARIABLE	
	VR481	QVPA601-103A	10K VARIABLE	

Δ : SAFETY PARTS

OTHERS

Δ	ITEM	PART NUMBER	DESCRIPTION	AREA
	J497	VMC0234-P07	CONNECT TERMINAL 7PIN	
	J498	VMC0234-P07	CONNECT TERMINAL 7PIN	
	K302	ENZ8101-007	INDUCTOR	C
	K303	ENZ8101-007	INDUCTOR	C
	K304	ENZ8101-007	INDUCTOR	C
	L331	ENZ6002-012	OSCILLATOR COIL	
	L333	EQL2106-223	INDUCTOR	
	L334	EQL2106-223	INDUCTOR	
	L401	EQL2106-562	INDUCTOR	
	L402	EQL2106-562	INDUCTOR	
	L437	EQL2106-223	INDUCTOR	
	L438	EQL2106-223	INDUCTOR	
	P331	EMV5133-007K	PLUG ASSY 7PIN	
	P333	EMV5133-003K	PLUG ASSY 3PIN	
	P490	EMV5109-009A	PLUG ASSY 9PIN	
	P491	EMV5109-008A	PLUG ASSY 8PIN	
	P492	EMV5142-911	PLUG ASSY 11PIN	
	P493	EMV5142-906	PLUG ASSY 6PIN	
	S310	QSS7A12-E01	SLIDE SWITCH FWD REC	B
	S310	QSS7A12-E01	SLIDE SWITCH METAL/TAPE	C
	S461	ESB1100-007	LEAF SWITCH	
	S462	ESB1100-007	LEAF SWITCH	
	S463	ESB1100-007	LEAF SWITCH B.Cro2	
	S464	ESB1100-007	LEAF SWITCH REV/REC	
	S465	ESB1100-007	LEAF SWITCH A.Cro2	
	S466	ESB1100-007	LEAF SWITCH	
	S467	ESB1100-007	LEAF SWITCH	
	T301	E70225-001	EARTH PLATE	
	BC490	EWS269-F413	SOCKET WIRE	
	BC491	EWS268-F413	SOCKET WIRE	
	FW495	EWR34B-16LST	FLAT WIRE 4PIN	
	FW496	EWR38B-16LST	FLAT WIRE 8PIN	
	FW702	EWR33B-20LST	FLAT WIRE 3PIN	
	JB311	EMV7141-015	CONNECTOR 15PIN	
	XT491	ECX0004-194KM	RESONATOR	

Δ : SAFETY PARTS

— MEMO —